

## **DRAFT**

**Yakima Valley Dairies** 

**Residential Well Sampling Report** 

**Provision of Water** 

Administrative Order on Consent

SDWA-10-2013-0080

October 10, 2013



## DRAFT

## **Residential Well Sampling**

## **Provision of Water**

## Administrative Order on Consent SDWA-10-2013-0080

Yakima Valley Dairies, Washington

Report Approvals:				
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Steve Hicks, PE Quality Manager				
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## Provision of Water

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## **Acronyms and Abbreviations**

AOC Administrative Order on Consent

DQO data quality objective

EPA U.S. Environmental Protection Agency

HSP Health and Safety Plan

MCL maximum contaminant level

mg/L milligrams per liter

PARCC precision, accuracy, representativeness, comparability, and completeness

PC Project Coordinator

QAM Quality Assurance Manager

QAPP Quality Assurance Project Plan

QC quality control

RO reverse osmosis

SOP standard operating procedure

SOW Statement of Work

SSC/STL Site Safety Coordinator/Sampling Team Leader

### **Distribution List**



## **Distribution List (A3)**

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#### 1. Introduction

ARCADIS U.S. Inc. (ARCADIS) on behalf of: (1) Cow Palace, LLC; (2) D & A Dairy, LLC (also known as D&A Dairy L.L.C.), George DeRuyter & Son Dairy, L.L.C., and George & Margaret, L.L.C; and (3) Liberty Dairy LLC and its associated dairy facility H&S Bosma Dairy presents the U.S. Environmental Protection Agency (EPA) this Residential Well Sampling Report (the "Report") for the Yakima Valley Dairies (the "Dairies"). The Report was prepared in accordance with the requirements identified in Section III - Provision of Water of the Statement of Work (SOW) (Appendix B) for Administrative Order on Consent (AOC) SDWA-10-2013-0080. Residential Well Sampling Activities are defined in the Residential Well Sampling Quality Assurance Project Plan (QAPP) dated April 26, 2013 (approved by EPA May 13, 2013).

#### 1.1 Purpose

Pursuant to Section III.D - Provision of Water as presented in the AOC SOW, the Dairies are required to offer reverse osmosis (RO) treatment systems, or other alternative water if mutually approved by the EPA and the Dairies, to each residence that does not already have a RO treatment system or alternative water where testing showed that nitrate concentrations in the drinking water supply exceed the nitrate maximum contaminant level (MCL) of 10 milligrams per liter (mg/L), provided that the residence is within:

- The boundary of the Dairy Facilities (Figures 1 and 2), or
- One mile downgradient of the boundary of the Dairy Facilities (Figure 1 and Figure 2).

Collection and analysis of drinking water samples were required in order to determine the need for RO treatment systems or alternative water supply at residences within the boundaries identified in Figures 1 and 2, hereafter referred to as the "area of interest".

For residences where RO systems are in place, no sampling of the water supply was conducted. The Dairies offered to provide professional maintenance of these systems at the Dairies cost.



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#### 1.2 Scope of Work

The scope of the Residential Well Sampling included the collection and analysis of drinking water samples from residences within the area of interest as presented in Section 1.1.

Activities performed as part of the Residential Wells Sampling included the following

- Identification of residences located within the area of interest (Figures 1 and 2)
- Communication with residents within the area of interest via:
  - Notification letters mailed prior to Residential Well Sampling
  - o Home visits during Residential Well Sampling
  - "Not-at-home" notification left at residences where contact could not be made with the occupants.
- Collection of drinking water samples for nitrate concentration field screening at residences where permission to collect samples was granted. Drinking water samples were screened in the field at the time of collection using Hach™ test strips to estimate nitrate concentrations.
- At residences where field screening samples indicated nitrate concentrations greater than 5 parts per million (ppm), drinking water samples were collected and delivered to TestAmerica Laboratory, Inc. (TestAmerica), a State of Washington accrediated drinking water laboratory located in Spokane Valley, Washington for nitrate analysis by EPA Method 300.0.
- Following laboratory analysis, residences where detected nitrate concentrations in drinking water exceed the 10 mg/L MCL were offered RO treatment systems.
- Where offers of RO treatment systems of alternative water were accepted, they
  were installed and will be maintained by the Dairies.
- For residences where RO systems were found to be in place, the Dairies offered professional maintenance of these systems at the Dairies cost.



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### 2. Data Generation and Acquisition

#### 2.1 Residence Identification and Communication

A Residential Well Sampling notification letter was sent to each of the 223 residences that were identified within the area of interest. The letters were sent to the residences on May 17, 2013. Table 1 presents the 223 residences by street address. The notification letter was presented in English and Spanish and included the following information:

- Notification of the purpose of the Residential Well Sampling
- · Dates when sampling crews will be in the area
- An invitation for response to:
  - Ask questions about the sampling
- Contact information for both the Project Coordinator (PC) and the U.S.
   Environmental Protection Agency (EPA) PC.

Responses to notification letters were documented and categorized as they were received. For residences where positive responses were received, sampling appointments were scheduled. For negative responses or non-respondent residences, the name and address associated with the residence was forwarded to the EPA PC by the ARCADIS PC.

Residences were visited by the ARCADIS field sampling teams beginning on May 28, 2013. Field sampling teams informed the residents of the Residential Well Sampling and requested permission to sample. Where permission was granted, samples were collected. For residences where permission was denied, the refusal was documented, and the name and address associated with the residence was forwarded to the EPA PC by the ARCADIS PC.

For residences where no one was present, a "not-at-home" note was left either on the door or in an area believed to readily visible by the resident. The names and addresses associated with "not-at-home" residences were forwarded to the EPA PC by the ARCADIS PC. If a positive response for sampling was received as a result of the "not-at-home" note, a sampling appointment was scheduled with the resident. A follow-up round of visits to "not-at-home" residents who did not respond was completed June 19



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– 20, 2013. Residences that declined sampling via response to the initial notification letter were not visited by the field sampling teams.

#### 2.2 Residential Well Sampling

Residential well sampling was initiated on May 27, 2013 and substantially completed by June 10, 2013; ARCADIS continued to sample residences who responded to the notification letter and/or "not-at-home" notification until June 20, 2013. Additionally, ARCADIS sampled X residential properties owned by the Dairies where no resident response was received on September 18, 2012. Where residents granted permission for ARCADIS sampling crews to enter the premises, the sampling crews initially inquired as to presence or absence of (1) a reverse osmosis (RO) system or (2) a water treatment system (such as a water softener) at the residence. If an RO system was present, the sampling team documented the type of system present, including its make and model. The sampling team inquired if the RO system is professionally maintained, and if so, who performs the maintenance (including contact information, if available). Offers for professional RO system maintenance were made to all residences with existing RO systems. Appendix A presents Residential Well Sampling Records.

Upon receiving permission to collect a water sample at the residence, an initial screening sample was collected. In most cases, samples were collected from an outside hose bib. Fifteen samples were collected inside a residence from the kitchen faucet. If a water softener was present, field sampling crews ensured that samples were collected upstream of the treatment system or the system was disconnected prior to collecting the sample.

The screening sample was analyzed using Hach<sup>™</sup> test strips. If the Hach<sup>™</sup> test strip indicated that nitrate concentrations were less than 5 mg/L, no I sample for laboratory analysis were collected. If the Hach<sup>™</sup> test strip indicated that nitrate concentrations were equal to or greater than 5 mg/L, a sample for laboratory analysis was collected. In all cases, the results of the Hach<sup>™</sup> test strip analysis was shared with the resident at the time of sampling and documented on the Residential Well Sampling Record and in the Hach<sup>™</sup> test strip log.

Laboratory analytical results were used to determine the need for an offer of an RO treatment system or alternative water supply. If the nitrate concentration was confirmed by laboratory analysis to be greater than 10 mg/L, an offer was made. If the nitrate



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concentration was less than 10 mg/L, no offer was made. In all cases, the laboratory analytical results were provided to both the resident (via U.S. Mail) and EPA.

#### 2.2.1 Sampling Methods

This section presents the sampling methodology for the collection of screening and laboratory analytical samples from residences where positive responses to requests for sampling were obtained. As noted in Section 2.1, initial sampling activities focused on residences where positive responses were received from the initial request letter, followed by residences where permission was obtained by site visit. The sampling and site visit activities were conducted by a field team of two field staff.

- a) Ask the resident if an RO system or water softener is present at the residence.
- b) If an RO system is present, visually observe the system to document the make and model. Ascertain and document if the system is professionally maintained. No sample was collected from the residence if an RO system was present..
- c) If a water softener or other water treatment system is present, visually verify the location of the system and determine the appropriate location at the residence to collect a water sample upstream of the treatment system or ensure that the treatment system is in "bypass" mode during sampling.
- d) Endeavor to collect the sample from an outdoor hose bib. Outside hose bibs are typically located upstream of treatment systems, and use of an outdoor sampling location eliminates the need to enter the residence, results in less inconvenience to the resident, and allows for purge water to be spread on the lawn or other outside area. If an outdoor hose bib is not present or accessible, collect the samples from a utility or kitchen area sink.
- e) If an indoor faucet is used for sampling, remove any filters or aerators prior to sampling.
- f) Don clean nitrile gloves and disinfect the hose bib or faucet prior to sampling using a disinfecting spray or wipe and then dry using a clean paper towel.
- g) Fit variable width tubing over the disinfected hose bib or faucet and cut to an appropriate length to allow sampling. If necessary, hose clamps may be used to attach the tubing to the water supply.
- h) After attaching tubing, run the water source for 5 minutes to remove stagnant water from the water system.
- i) After 5 minutes, take a nitrate Hach<sup>™</sup> test strip measurement, following manufacturer instructions.
- j) Shut off the water.



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- k) Follow test strip manufacturer instructions to determine the nitrate concentration in the sample.
- Record the results on the residence sample sheet and in the test strip result log and share the results with resident.
- m) If the nitrate test strip indicates a nitrate concentration of less than 5 mg/L, disassemble the sampling equipment, restore the resident's property (e.g., aerators, filters, garden hose) to its original location prior to sampling, and depart location.
- n) If the nitrate test strip indicates a nitrate concentration of 5 mg/L or greater, turn on water source and allow it to run for 1 minute.
- o) Fill the sample bottle to within 1 inch of the top and seal with the lid. Do not overflow.
- p) Collect duplicate samples for laboratory analysis at a frequency of one out of every ten samples.
- q) Fill out the chain-of-custody form and sample bottle label, and record sample numbers on the residence sampling field sheet and sample log forms. Unique sample numbers for each residence are provided to the sample team by the Sampling Team Leader (STL) prior to sampling activities. If a duplicate sample is collected, follow the duplicate sample number guidance provided in Section 2.5.2 of the QAPP.
- r) Place samples on ice in coolers for shipment to the laboratory.
- s) Disassemble sampling equipment and restore resident's property (e.g., aerators, filters, garden hose) to its original location prior to sampling.
- t) Prior to departing, collect and decontaminate all non-disposable sampling equipment (e.g., hose clamps, screwdrivers) using a disinfectant spray or wipe. All disposable sampling equipment (e.g., tubing, gloves, disinfectant wipes) will be contained in a garbage bag and disposed of in an appropriate trash receptacle identified by the STL at the end of each day.
- u) Measure and record the GPS coordinates of the location for each well sampled. GPS data include latitude, longitude, and elevation. Coordinates are recorded in decimal degrees.

## 2.2.2 Sample Handling and Custody

All samples were accompanied by a chain-of-custody record. When custody of samples was transferred, the individuals relinquishing and receiving the samples signed and dated the chain-of-custody record. The chain-of-custody record documents custody transfer from the sampler, often through another agent (shipping/transport company), to the laboratory sample custodian.



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Prior to shipment, samples were packaged properly and a chain-of-custody record accompanied each shipping container. All shipping containers were sealed with custody seals for shipment/transport to the laboratory. Custody seals were placed in a manner that indicated if the container has been opened during shipment. Courier names and other pertinent information were documented on the chain-of-custody record. All shipments were accompanied by the chain-of-custody record that identifies the contents of the shipment. The original and one copy was included in the shipment, an additional copy was retained by the sampler and provided to the ARCADIS PC. All shipping documentation (e.g., freight bills) was retained as part of the chain-of-custody documentation by the ARCADIS PC.

All samples collected for laboratory nitrate concentration analysis were received by Ms. Cat Stapleton at TestAmerica located at 11922 E 1<sup>st</sup> Avenue, Spokane, Washington, 509.924-9200. Upon arrival at the laboratory, the TestAmerica sample custodian accepted custody of the samples from the carrier and entered information about the shipment into a sample receipt log that included the initials of the person delivering the package and the status of custody seals on the containers. The sample custodian logged in the samples following the laboratory standard operating procedure (SOP). Following sample analysis, the unused portions of all samples were disposed of by TestAmerica in accordance with their laboratory SOP. A total of 12 sample delivery groups were submitted to the analytical laboratory; the delivery groups and collection dates are as follows:

Sample Delivery Group	Samples Collected	Date Received by Lab
SWE0197	May 28, 29, 2013	May 30, 2013
SWE0206	May 29 & 30, 2013	May 30, 2013
SWE0207	May 30, 2013	May 31, 2013
SWF0005	June 3, 2013	June 4, 2013
SWF0019	June 3 & 4, 2013	June 5, 2013
SWF0030	June 4 & 5, 2013	June 6, 2013
SWF0049	June 5 & 6, 2013	June 7, 2013
SWF0058	June 9 & 10, 2013	June 11, 2013
SWF0070	June 10, 2013	June 11, 2013
SWF0123	June 18 & 19, 2013	June 20, 2013
SWF0131	June 19 & 20, 2013	June 20, 2013
SWI0124	September 18, 2013	September 19, 2013



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In addition to the chain-of-custody documentation described above, field sampling forms were completed at each residence and indicated if samples were collected, sample numbers, duplicate samples, and other pertinent information including significant events and observations that occurred during sampling activities. Sufficient information was noted on field sampling forms to enable participants to reconstruct events that occurred and to refresh the memory of field personnel, if needed (Appendix A). Original copies of all field forms and chain-of-custody documents were retained by the ARCADIS PC in the project files.

#### 2.3 Analytical Methods

Residential well samples were analyzed for nitrate by EPA Method 300.0. Because of the 48-hour holding time for nitrate analysis by EPA Method 300.0, samples were shipped using an overnight delivery service each day (Monday through Thursday). TestAmerica analyzed the samples immediately upon receipt to ensure holding time compliance. Analytical laboratory reports are presented in Appendix B.

## 2.4 Quality Control

This section presents the field and laboratory quality control (QC) requirements for Residential Wells Sampling.

#### 2.4.1 Field Quality Control Samples

The Residential Wells Sampling included the collection of field QC samples including field duplicates and field blanks. The field duplicate samples were collected immediately following collection of target samples using the same collection procedures. Field duplicate samples were collected at a frequency of one in every ten samples. A field blank QC sample was prepared by the sampling team at the beginning of each sampling day by filling a sample bottle with laboratory supplied deionized water. The field blank was stored in the sample cooler for the duration of the sampling day. Field blanks were prepared for each sample cooler and were sent to the laboratory for analysis as part of the related sample delivery group.

#### 2.4.2 Laboratory Quality Control Procedures

Laboratory QC procedures included the following:



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- Nitrate analysis of water samples according to EPA Method 300.0
- Instrument calibration and standards as defined in EPA Method 300.0
- Laboratory blank measurements at a minimum 5 percent or one per batch frequency
- · Accuracy and precision measurements at a minimum of one in 20 or one per set
- Data reduction and reporting according to EPA Method 300.0
- Laboratory documentation according to EPA Method 300.0 and laboratory SOP requirements.

#### 2.5 Data Management (B10)

All field data collected during the Residential Wells Sampling was recorded on field forms (Appendix A). Pertinent information, such as Hach™ test strip results, were transferred to an Excel spreadsheet.

The analytical data obtained from the laboratory is maintained in an electronic data management tool. All data underwent review and validation as described in Section 4. Five Data Usability Summary Reports, documenting the data validation for each of the sample delivery groups, were submitted to EPA during the course of the project. Data validation reports are presented in Appendix C.

In addition, the data were provided to the EPA in accordance with the procedures presented in "EPA Region 10 Monitoring and Analytical Data Deliverables Data Submission Process for Water Quality Exchange (WQX) Compatible Deliverables for Yakima Dairies (Docket No. SDWA-10-2013-0080), and "EPA Region 10 Geographic Information System Data Deliverable Guidance for Yakima Dairies (Docket No. SDWA-10-2013-0080). These data are presented on the enclosed CD.

Data submitted to the EPA is provided in the requested format which is consistent with the examples provided by the EPA to ARCADIS.

#### 3. Assessment

This Residential Well Sampling Report documents the following:

- · All residences identified within the area of interest
- All efforts to contact residents to sample drinking water supplies
- · All screening and laboratory analytical results
- Records of offers for treatments systems and resident responses.



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#### 3.1 Residential Sampling Locations

A total of 223 residences were identified within the area of interest. One hundred eighty-one residences were located one mile downgradient of the boundary of the Dairy Facilities. Forty-two residences were located within the Dairy Facilities boundary. A summary of all the residences identified for the Residential Well Sampling and visited by ARCADIS personnel is presented in Table 1. Forty-eight of the residences were identified as having an existing RO system (Table 2).

#### 3.2 Field Screening

One hundred forty-five residences gave permission to collect samples (does not include residences that were determined to have existing reverse osmosis [RO] systems installed). Field screening of 26 residences had Hach<sup>™</sup> test strip results less than 5 mg/L (Table 3). Drinking water samples were not collected from these residences.

#### 3.3 Analytical Results

One hundred fifteen residences were identified for the collection of drinking water samples (Table 4). Fifteen of these residences shared a common well with a nearby residence. A total of 100 residences were sampled for the analysis of nitrate in drinking water. A summary of quality control samples is presented in Table 5.

#### 3.3.1 Result Less Than MCL

Analytical results of drinking water samples indicated that 49 residences had detected nitrate concentrations less than the MCL of 10 mg/L (Table 6). Three of these residences share a well having a nitrate concentration less than the MCL.

#### 3.3.2 Result Greater Than MCL

Analytical results of drinking water samples indicated that 66 residences had detected nitrate concentrations equal to or greater than the MCL of 10 mg/L (Table 7). Twelve of these residences share a well having a nitrate concentration greater than the MCL.



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#### 3.4 Treatment System Installations and Maintenance Offers

Letters offering either the installation of an RO system or the maintenance of an existing system were mailed to residences that had a drinking water nitrate concentration greater than the MCL or an existing RO system, respectively. If a mailed offer letter was returned to ARCADIS as undeliverable, ARCADIS personnel hand-delivered the letter to the residence. At the time of this report, a total of 32 RO system installs and 14 RO system maintenance offers have been accepted.

RO system installs and maintenance of existing RO systems is performed by Pinnacle Plumbing & Heating, Inc. of Selah, Washington. Reverse osmosis system installs and maintenance work orders (through October 7, 2013) are presented in Appendix D.

#### 3.4.1 Reverse Osmosis Installations

A total of 32 RO system installs have been accepted (Table 8). Twenty-two RO system installs have been completed as of October 9, 6 RO system installs are scheduled to be completed by October 18, 2013, and 4 accepted RO system installs are unscheduled.

#### 3.4.2 Existing System Maintenance Offers

A total of 14 RO system maintenance offers have been accepted (Table 9). Nine RO system maintenances have been completed, 3 RO system maintenances are scheduled to be completed by October 18, 2013, and 2 accepted RO system maintenances are unscheduled.

#### 3.5 Not-At-Home/Refusals

Information for the 36 residences that were "Not at Home", vacant, or access was refused is summarized in Table 10. Detail for these residences is as follows:

- 19 "Not at Home" residences. ARCADIS visited these residences twice in an attempt to establish contact
- 4 undeveloped lots
- 8 vacant homes
- 4 refusals
- 1 parcel was found not to exist



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## 4. Data Validation and Usability

#### 4.1 Data Review, Verification, and Validation

Data verification was conducted by the laboratory prior to submission to the PC. Data review, validation, and verification performed by the laboratory comply with EPA Method 300.0 requirements and laboratory SOPs.

#### 4.2 Verification and Validation Methods

Prior to submitting the analytical samples to the laboratory, the sampling team leader or a designate reviewed the field notes and chain of custody for accuracy and completeness. The notes were reviewed for appropriate documentation of the field work pertinent activities, including verifying complete residential information. The sample chain of custodies were reviewed for appropriate sample nomenclature and selected analysis.

The analytical data generated was reduced, validated, and reported by the laboratory as described in EPA Method 300.0 and laboratory SOPs. Data verification was performed by the laboratory for all analyses prior to the release of the data to ARCADIS. The laboratory archived the analytical data in their own laboratory data management system. In addition, the project chemist validated laboratory data upon receipt.

## 4.2.1 Validation

An ARCADIS chemist validated laboratory data upon receipt. The chemist performed a Level II validation consistent with the National Functional Guidelines (EPA 2010). Data validation reports are presented in Appendix C.

#### 4.3 Reconciliation with User Requirements

Analytical data results obtained during the Residential Wells Sampling was reconciled with precision, accuracy, and completeness criteria shown in Table 2 of the QAPP and presented in the Data Usability Summary Reports (Appendix E).

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#### 5. References Cited

- ARCADIS U.S., Inc. (ARCADIS). 2013 Residential Well Sampling Quality Assurance Project Plan. Administrative Order on Consent SDWA-10-2013-0080. Prepared for the Yakima Valley Dairies. April 26.
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- EPA. 2013. Administrative Order on Consent (AOC) Docket No. SDWA-10-2013-0080, March 19.



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#### 6. Certifications

Cow Palace LLC

#### 6.1 Cow Palace Certification

I certify under the penalty of law that this document and all attachments were prepared by me or under my direction or supervision in accordance with a system designed to assure that qualified personnel gathered and evaluated the information submitted. Based on my inquiry of any and all persons directly responsible for gathering and analyzing the information obtained, I certify that the information contained in or accompanying this submittal is to the best of my knowledge and belief, true, accurate and complete. As to those identified portion(s) of this submittal for which I cannot personally verify the accuracy, I certify that this submittal and all attachments were prepared in accordance with procedures designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those directly responsible for gathering the information, or the immediate supervisor of such person(s), the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:	
Name:	Adam Dolsen
Title:	Member
Date:	



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#### 6.2 D & A Dairy and George DeRuyter & Son Dairy Certification

I certify under the penalty of law that this document and all attachments were prepared by me or under my direction or supervision in accordance with a system designed to assure that qualified personnel gathered and evaluated the information submitted. Based on my inquiry of any and all persons directly responsible for gathering and analyzing the information obtained, I certify that the information contained in or accompanying this submittal is to the best of my knowledge and belief, true, accurate and complete. As to those identified portion(s) of this submittal for which I cannot personally verify the accuracy, I certify that this submittal and all attachments were prepared in accordance with procedures designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those directly responsible for gathering the information, or the immediate supervisor of such person(s), the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

D & A Dairy, LLC (also known as D and A Dairy L.L.C.), George DeRuyter & Son Dairy, L.L.C

Signature:	
Name:	Dan DeRuyter
Title:	Member
Date:	
	<u> </u>



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#### 6.3 George & Margaret Certification

George & Margaret, L.L.C.

I certify under the penalty of law that this document and all attachments were prepared by me or under my direction or supervision in accordance with a system designed to assure that qualified personnel gathered and evaluated the information submitted. Based on my inquiry of any and all persons directly responsible for gathering and analyzing the information obtained, I certify that the information contained in or accompanying this submittal is to the best of my knowledge and belief, true, accurate and complete. As to those identified portion(s) of this submittal for which I cannot personally verify the accuracy, I certify that this submittal and all attachments were prepared in accordance with procedures designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those directly responsible for gathering the information, or the immediate supervisor of such person(s), the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:	
Name:	Dan DeRuyter
Title:	Member
Date:	



Provision of Water Yakima Valley Dairies SDWA-10-2013-0080

#### 6.4 Liberty Dairy Certification

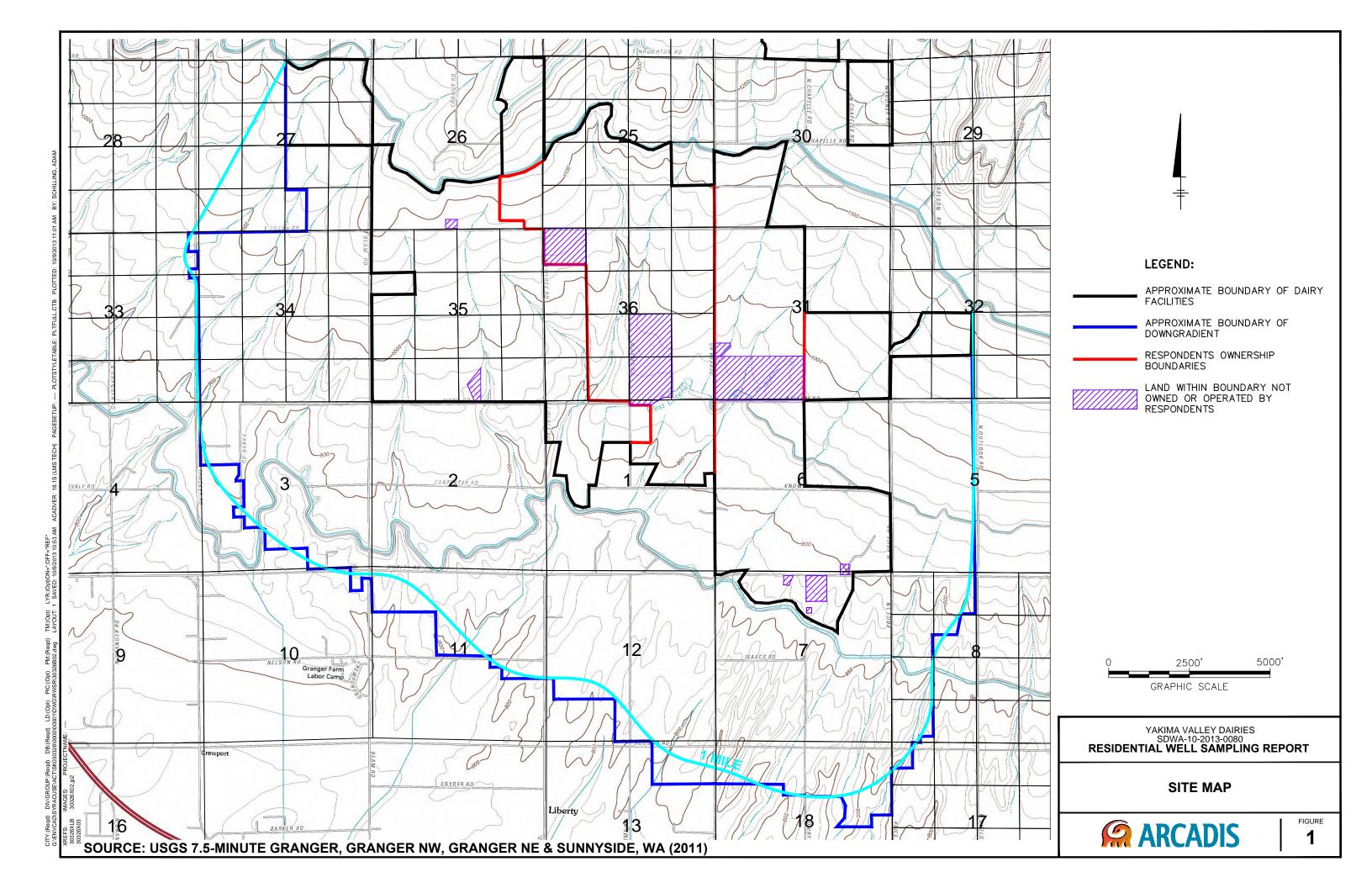
I certify under the penalty of law that this document and all attachments were prepared by me or under my direction or supervision in accordance with a system designed to assure that qualified personnel gathered and evaluated the information submitted. Based on my inquiry of any and all persons directly responsible for gathering and analyzing the information obtained, I certify that the information contained in or accompanying this submittal is to the best of my knowledge and belief, true, accurate and complete. As to those identified portion(s) of this submittal for which I cannot personally verify the accuracy, I certify that this submittal and all attachments were prepared in accordance with procedures designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those directly responsible for gathering the information, or the immediate supervisor of such person(s), the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

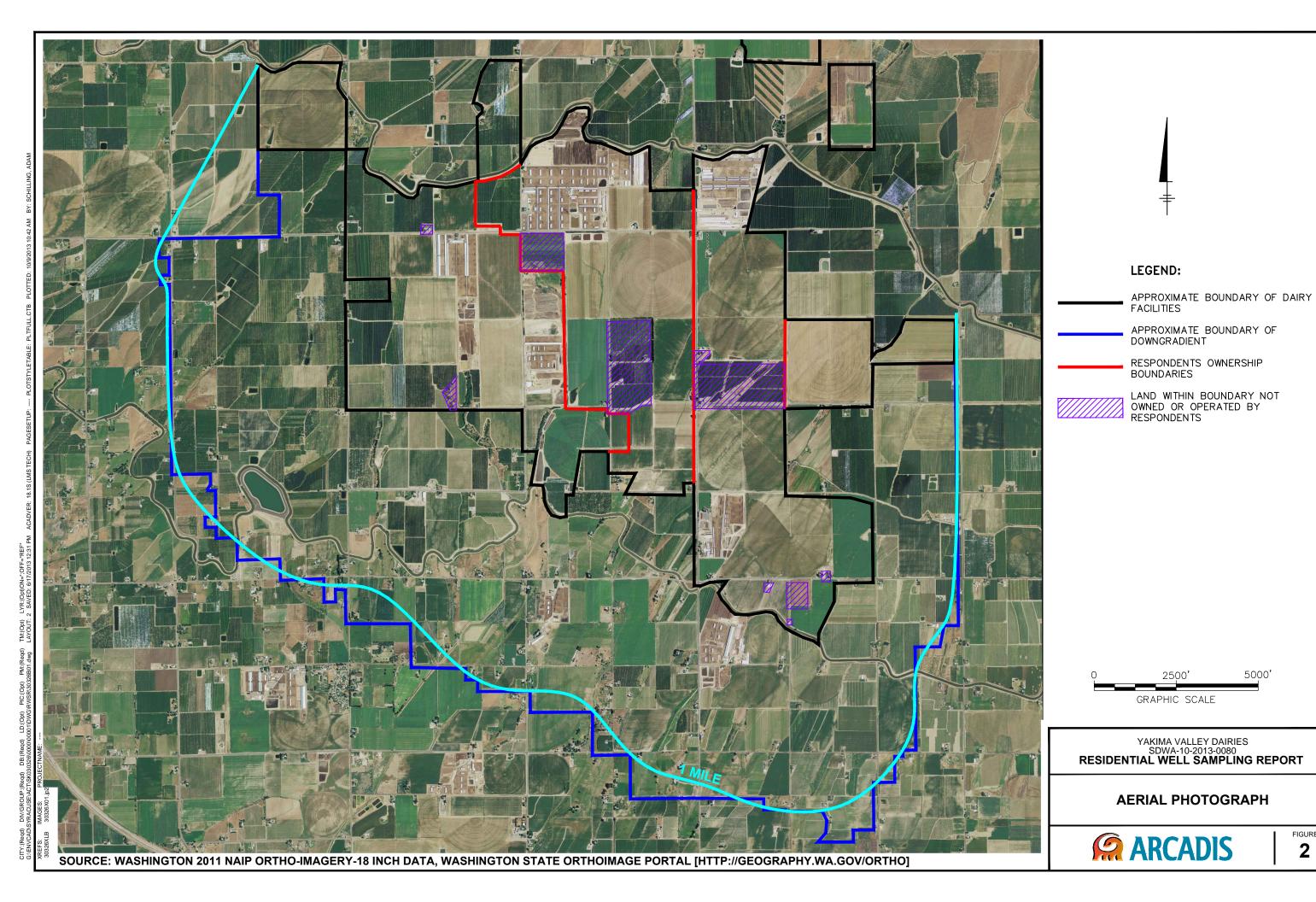
Liberty Dairy, LLC and its associated dairy facility H & S Bosma Dairy

Name: Henry Bosma	
Title: Partner	
Date:	



**Figures** 





FIGURE



**Tables** 

## Table 1 Summary of Residences Residential Well Sampling Yakima Valley Dairies

ample lo.	Number	Street	Owner/Occupant Last Name	Owner/Occupant First Name	Latitude (DD)	Longitude (DD)	Visit Date (2013)	Туре	Sampled	Analytical Method	Analyte	Result	Units Qu	alifier	Notes
W-1001							6/2							١	/acant lot;
W-1002							6/10							F	RO system present
W-1003							6/2							F	RO system present
W-1004							6/10							F	RO system present
W-1005							6/2							F	RO system present
W-1006	<u> </u>						6/10								RO system present
							2/12								RO system present - Same
W-1007	+						6/19	144 11 0 1	0/0/0040 40 00	EDA 000 0	A.P.		,	C	corresponds to RW-1205
W-1008	+						6/3	Well Sample	6/3/2013 10:08	EPA 300.0	Nitrogen	20	mg/l	N	Not home; left card (2nd
W-1009							6/19								attempt; first visit 6/3)
W-1010	+						6/3								RO system present
V-1011	+						5/30	Well Sample	5/30/2013 11:55	EPA 300.0	Nitrogen	30.6	mg/l		
W-1012	-						5/30	Well Sample	5/30/2013 11:40	EPA 300.0	Nitrogen	5.63	mg/l		
W-1013	+						6/3	·			<u> </u>			F	RO system present
W-1014							6/3	Well Sample	6/3/2013 19:07	EPA 300.0	Nitrogen	50.9	mg/l		
V-1015							6/2							F	RO system present
W-1016							6/2								/acant
V-1017							6/3	Well Sample	6/3/2013 10:07	EPA 300.0	Nitrogen	15.9	mg/l	-	
V-1018	†						6/2	·			<u> </u>		- ŭ	F	Hach test <5 ppm
W-1019	†						6/2							F	RO system present
W-1020	Ť						6/3	Well Sample	6/3/2013 13:15	EPA 300.0	Nitrogen	5.4	mg/l		
V-1021							6/3							F	RO system present
															RO system present;
W-1022	+						6/19								uncooperative occupant
N-1023	+						6/3								/acant; left card
V-1024	+						6/19						_	F	Hach test <5 ppm
N-1025	+						6/18	Well Sample	6/18/2013 19:06	EPA 300.0	Nitrogen		mg/l		
V-1026	-						6/3	Well Sample	6/3/2013 13:03	EPA 300.0	Nitrogen	8.3	mg/l		
N-1027	-						6/3	Well Sample	6/3/2013 13:46	EPA 300.0	Nitrogen	5	mg/l		
V-1028	+						6/3								RO system present
V-1029	+						6/18		= /00 /00 / 0 / 0 =					<u> </u>	RO system present
N-1030	+						5/28	Well Sample	5/28/2013 14:35	EPA 300.0	Nitrogen	7.59	mg/l		
N-1031	+						6/3	Well Sample	6/3/2013 17:26	EPA 300.0	Nitrogen	5.5	mg/l		
V-1032	+						6/3			+					Hach test <5 ppm
V-1033	+						6/3								Hach test <5 ppm
V-1034	+						6/3								RO system present
V-1035	+						6/5								Hach test <5 ppm
/-1036	+						6/3	Mall Carrala	0/0/0040 40-04	EDA 200 0	Nitroman	F 2			RO system present
/-1037	+						6/3	Well Sample	6/3/2013 13:31	EPA 300.0	Nitrogen	5.3	mg/l	N	Not home; left card (2nd
V-1038							6/18								attempt; first visit 6/4)
W-1039							6/4			†					Hach test <5 ppm
										†				F	RO system present; shares we
V-1040							6/4								v/ RW-1042
V-1041							6/3	Well Sample	6/3/2013 8:47	EPA 300.0	Nitrogen		mg/l		
V-1042							6/4	Well Sample	6/4/2013 12:34	EPA 300.0	Nitrogen	39.3	mg/l		
V-1043							6/4							H	Hach test <5 ppm
V-1044							5/28	Well Sample	5/28/2013 15:25	EPA 300.0	Nitrogen		mg/l		
V-1045							5/28	Well Sample	5/28/2013 15:47	EPA 300.0	Nitrogen	15.3	mg/l		
N-1046							5/28	Well Sample	5/28/2013 16:20	EPA 300.0	Nitrogen	9.98	mg/l		
W-1047							5/28	Well Sample	5/28/2013 16:40	EPA 300.0	Nitrogen	10.2	mg/l		
N-1048							6/4	Well Sample	6/4/2013 16:42	EPA 300.0	Nitrogen	9.4	mg/l		
W-1049							5/28	Well Sample	5/28/2013 17:00	EPA 300.0	Nitrogen	9.36	mg/l		

## Table 1 Summary of Residences Residential Well Sampling Yakima Valley Dairies

Sample No.	Number	Street	Owner/Occupant Last Name	Owner/Occupant First Name	Latitude (DD)	Longitude (DD)	Visit Date (2013)	Туре	Sampled	Analytical Method	Analyte	Result	Units	Qualifier	Notes
RW-1050							5/28	Well Sample		EPA 300.0	Nitrogen	9.36	mg/l		Shares well w/ RW-1049
RW-1051							5/28	Well Sample	5/28/2013 17:25	EPA 300.0	Nitrogen	17.1	mg/l		
RW-1052							6/5								Vacant; left card
RW-1053							6/19								Hach test <5 ppm
RW-1054							5/28	Well Sample	5/28/2013 17:40	EPA 300.0	Nitrogen	10.2	mg/l		Same well as RW-1055
RW-1055							5/28	Well Sample	5/28/2013 17:40	EPA 300.0	Nitrogen	10.2	mg/l		Same well as RW-1054
RW-1056							5/29								Hach test <5 ppm
															Not home; left card (2nd
RW-1057							6/18								attempt; first visit 6/4)
RW-1058							6/19								Not home; left card (2nd attempt; first visit 6/4)
XVV-1030							0/13								Not home; left card (2nd
RW-1059							6/19								attempt; first visit 6/4)
RW-1060							6/10								Hach test <5 ppm
RW-1061							6/6								Refusal; Do not sample
RW-1062							5/30	Well Sample	5/30/2013 10:05	EPA 300.0	Nitrogen	3.67	mg/l		
							0.00								Hach test <5 ppm; owner denie
															access to outside water, insisted
															they fill sample from indoor
RW-1063							6/4								faucet, protocols not followed
RW-1064							6/4	Well Sample	6/4/2013 14:00	EPA 300.0	Nitrogen	8.74	mg/l		
RW-1065							6/3								RO system present
RW-1066							5/29								RO system present
RW-1067	-						6/4								Hach test <5 ppm
RW-1068							6/5	Well Sample	6/5/2013 10:21	EPA 300.0	Nitrogen	30.7	mg/l		
RW-1069	_						6/19								RO system present
RW-1070							6/3								Hach test <5 ppm
RW-1071							5/29								Hach test <5 ppm
RW-1072							6/3	Well Sample	6/3/2013 17:10	EPA 300.0	Nitrogen	4.86	mg/l		
RW-1073							6/4								Hach test <5 ppm
RW-1074							6/3								Hach test <5 ppm
RW-1075							6/4	Well Sample	6/4/2013 10:17	EPA 300.0	Nitrogen	11.3	mg/l		
RW-1076							6/19	Well Sample	6/19/2013 9:51	EPA 300.0	Nitrogen	9.58	mg/l		
RW-1077							6/19								Not home; left card (2nd attempt; first visit 6/4)
											Nitrate-				RO system present @ kitchen
RW-1078							5/29	Well Sample	5/29/2013 16:33	EPA 300.0	Nitrogen	12.4	mg/l		sink Vacant:   left card: left
RW-1079	_						5/30								Vacant; ; left card; left message
RW-1080							5/30								RO system present
RW-1081							6/20								RO system present
RW-1082							6/6	Well Sample		EPA 300.0	Nitrogen	36.5	mg/l		Shares well w/ RW-1083
RW-1083							6/6	Well Sample	6/6/2013 10:52	EPA 300.0	Nitrogen	36.5	mg/l		
RW-1084							5/29	Well Sample	5/29/2013 15:20	EPA 300.0	Nitrogen	7.91	mg/l		
RW-1085							5/29	Well Sample	5/29/2013 8:15	EPA 300.0	Nitrogen	8	mg/l		
RW-1086							5/30	Well Sample	5/30/2013 8:55	EPA 300.0	Nitrogen	16.8	mg/l		
RW-1087							5/30	Well Sample	5/30/2013 10:15	EPA 300.0	Nitrogen	3.82	mg/l		
															Not home; left card (2nd
RW-1088							6/19	1		1					attempt; first visit 5/30)
RW-1089							5/30	Well Sample		EPA 300.0	Nitrogen	16.8	mg/l		Shares well w/ RW-1086
RW-1090A							5/30	Well Sample	5/30/2013 10:50	EPA 300.0	Nitrogen	23.8	mg/l		
RW-1090B							5/30	Well Sample	5/30/2013 10:55	EPA 300.0	Nitrogen	23	mg/l		
RW-1091							5/30	Well Sample	5/30/2013 15:38	EPA 300.0	Nitrogen	3.12	mg/l		
RW-1092							5/29	Well Sample	5/29/2013 15:40	EPA 300.0	Nitrogen	8.3	mg/l		
RW-1093							5/29	Well Sample	5/29/2013 8:57	EPA 300.0	Nitrogen	7.87	mg/l		
RW-1094							5/29	Well Sample	5/29/2013 9:18	EPA 300.0	Nitrogen	4.59	mg/l		<u> </u>

#### Table 1 Summary of Residences Residential Well Sampling Yakima Valley Dairies

ample lo.	Number	Street	Owner/Occupant Last Name	Owner/Occupant First Name	Latitude (DD)	Longitude (DD)	Visit Date (2013)	Туре	Sampled	Analytical Method	Analyte	Result	Units	Qualifier	Notes
W-1095							5/29	Well Sample	5/29/2013 9:30	EPA 300.0	Nitrogen	11.8	mg/l		
W-1096							5/29	Well Sample	5/29/2013 9:45	EPA 300.0	Nitrogen	16	mg/l		
N-1097							5/30	Well Sample	5/30/2013 13:55	EPA 300.0	Nitrogen	10.1	mg/l		
V-1098							5/30	Well Sample		EPA 300.0	Nitrogen	10.1	mg/l		Shares well w/ RW-1097
V-1099	_						5/29	Well Sample	5/29/2013 11:20	EPA 300.0	Nitrogen	14	mg/l		
/-1100	_						5/29	Well Sample	5/29/2013 10:55	EPA 300.0	Nitrogen	10.9	mg/l		
							= /0.0		5/00/0040 44.00	<b>FD</b> A 000 0	Nitrate-	40.0			RO system present @ kitchen
V-1101							5/29	Well Sample	5/29/2013 14:20	EPA 300.0	Nitrogen	18.2	mg/l		sink
V-1102							5/30	Well Sample	5/30/2013 9:40	EPA 300.0	Nitrogen	18.2	mg/l		
V-1103	_						5/29	Well Sample	5/29/2013 11:10	EPA 300.0	Nitrogen	12.3	mg/l		Not home; left card (2nd
/-1104	_						6/20								attempt; first visit 5/29)
V-1105	_						6/20	Well Sample	6/20/2013 9:55	EPA 300.0	Nitrogen	8.58	mg/l		-
V-1106							5/29								Vacant
V-1107	_						5/29	Well Sample	5/29/2013 12:25	EPA 300.0	Nitrogen	10.4	mg/l		-
V-1108	_						5/29	Well Sample	5/29/2013 14:00	EPA 300.0	Nitrogen	20.3	mg/l		
V-1109	_						5/29	Well Sample		EPA 300.0	Nitrogen	20.3	mg/l		Shares well w/ RW-1108
V-1110	_						5/30	Well Sample	5/30/2013 14:30	EPA 300.0	Nitrogen	7.62	mg/l		
V-1111	_						6/18	Well Sample	6/18/2013 19:28	EPA 300.0	Nitrogen	3.16	mg/l		
V-1112							6/19	Well Sample	6/19/2013 17:52	EPA 300.0	Nitrogen	18.1	mg/l		
V-1113	_						6/6								RO system present
V-1114	_						6/19	Well Sample	6/19/2013 17:05	EPA 300.0	Nitrogen	12.3	mg/l		
V-1115	_						6/4	Well Sample	6/4/2013 18:25	EPA 300.0	Nitrogen	7.76	mg/l		<del> </del>
N-1116	_						6/4	Well Sample	6/4/2013 19:45	EPA 300.0	Nitrogen	4.36	mg/l		
N-1117	_						6/19								Not home; left card (2nd attempt; first visit 6/4)
W-1118	_						6/19	Well Sample	6/19/2013 17:20	EPA 300.0	Nitrogen	3.9	mg/l		
N-1119	_						6/4	Well Sample		EPA 300.0	Nitrogen	7.76	mg/l		Shares well w/ RW-1115
N-1120	_						6/4								RO system present
N-1121							6/4	Well Sample	6/4/2013 17:52	EPA 300.0	Nitrogen	15.6	mg/l		
V-1122	_						6/4	Well Sample	6/4/2013 18:10	EPA 300.0	Nitrogen	26.9	mg/l		
V-1123	_						6/4								RO system present
V-1124	_						6/4	Well Sample	6/4/2013 17:34	EPA 300.0	Nitrogen	18.6	mg/l		<del> </del>
V-1125							5/28	Well Sample	5/28/2013 16:05	EPA 300.0	Nitrogen	10.5	mg/l		<u> </u>
V-1126	_						6/4	Well Sample		EPA 300.0	Nitrogen	13.7	mg/l		Shares well w/ RW-1127
V-1127							6/4	Well Sample	6/4/2013 17:06	EPA 300.0	Nitrogen	13.7	mg/l		<u> </u>
V-1128	_						6/4	Well Sample		EPA 300.0	Nitrogen	13.7	mg/l		Shares well w/ RW-1127
							0/40		0/40/0040 40 00	<b>FD</b> A 000 0	Nitrate-	00.5			Sampled 9/18; (not home; lef
/-1129							9/18	Well Sample	9/18/2013 13:20	EPA 300.0	Nitrogen	28.5	mg/l		card - 1st visit 6/5; 2nd visit
V-1130							6/5	Well Sample	6/5/2013 13:41	EPA 300.0	Nitrogen	3.4	mg/l		Hash took 5 mm
V-1131							6/19	-				+			Hach test <5 ppm
V-1132							6/5					+		1	Hach test <5 ppm
N-1133							6/20	Mall Carriete	0/40/0040 4 4 4 4	EDA 000 0	N!!###	7.00			RO system present
N-1134							6/19	Well Sample	6/19/2013 14:14	EPA 300.0	Nitrogen	7.08	mg/l		D - ( 1
V-1135							6/19					+		1	Refusal
V-1136							6/5					+			RO system present
V-1137							6/19								Not home; left card (2nd attempt; first visit 6/5)
V-1138							6/5					1			RO system present
V-1139							6/5	Well Sample	6/5/2013 17:19	EPA 300.0			mg/l		
N-1140							6/5	Well Sample		EPA 300.0	Nitrogen	30.6	mg/l		Shares well w/ RW-1139
W-1141							6/6	Well Sample	6/6/2013 11:16	EPA 300.0			mg/l		
W-1142							6/6	Well Sample	6/6/2013 14:08		Nitrate-Nitroge		mg/l		
W-1143							6/6	Well Sample		EPA 300.0	Nitrogen	18.5	mg/l		Shares well w/ RW-1142

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RW-1144							6/3								Vacant; left card
RW-1145							6/5	Well Sample	6/5/2013 17:56	EPA 300.0	Nitrate-Nitrogen	27.3	mg/l		
RW-1146							6/5								RO system present
RW-1147							6/5								Vacant; left card
															Not home; left card
NA/ 44 40							0/40								; 2nd
W-1148							6/19				Nitrate-				attempt; first visit 6/6)) RO system present @ kitchen
W-1149							5/29	Well Sample	5/29/2013 11:50	EPA 300.0	Nitrogen	13.2	mg/l		sink
W-1150							5/30				Ŭ				RO system present
W-1151							6/6								RO system present
W-1152							5/29	Well Sample	5/29/2013 16:00	EPA 300.0	Nitrogen	15.8	mg/l		
W-1153							6/5	Well Sample	6/5/2013 18:32	EPA 300.0	Nitrate-Nitrogen	8.78	mg/l		
W-1154							6/5	'			3.				Hach test <5 ppm
W-1155							6/19							· · · · · · · · · · · · · · · · · · ·	Refusal
															Not home; left card (2nd
W-1156							6/19								attempt; first visit 6/5)
															Not home; left card (2nd
W-1157							6/19				Nitrate-				attempt; first visit 6/5)
W-1158							5/29	Well Sample	5/29/2013 10:08	EPA 300.0	Nitrate- Nitrogen	29.4	mg/l		RO system present @ kitchen sink
W-1159								Well Sample	6/3/2013 10:31	EPA 300.0	Nitrogen	12	mg/l		Sink
W-1160								Well Sample	6/5/2013 12:23	EPA 300.0	Nitrogen	9.16	mg/l		
N-1161							6/5	Well Sample	6/5/2013 12:11	EPA 300.0	Nitrogen	5.16	mg/l		
N-1162							6/20	vven Gampie	0/0/2010 12:11	217(000.0	Millogon	0.10	1119/1		RO system present
W-1163							6/6								Hach test <5 ppm
W-1164							6/5								RO system present
W-1165								Well Sample	6/5/2013 19:26	ΕΡΔ 300 0	Nitrate-Nitrogen	9.3	mg/l		Tto System prosent
W-1166							6/20	vven Gampie	0/3/2013 13.20	LI A 300.0	I viliate i viliogen	0.0	mg/i		RO system present
VV-1100							0/20								Not home; left card (2nd
W-1167							6/20								attempt; first visit 6/6)
															Not home; left card (2nd
W-1168							6/20								attempt; first visit 6/6)
W-1169							6/10	Well Sample	6/10/2013 15:08	EPA 300.0	Nitrogen	9.72	mg/l		
W-1170							6/6								RO system present
W-1171							5/30	Well Sample	5/30/2013 15:00	EPA 300.0	Nitrogen	12.7	mg/l		
N-1172							5/29	Well Sample	5/29/2013 14:35	EPA 300.0	Nitrogen	9.72	mg/l		
V-1173							5/30								RO system present
V-1174							5/30								RO system present
V 4475							0/00								Not home; left card (2nd
N-1175							6/20								attempt; first visit 6/3)
V-1176							6/6	Wall Commis	6/40/0040 00:45	EDA 200 C	Nitra a	6.00	m = "		RO system present
V-1177							6/19	Well Sample	6/19/2013 20:15	EPA 300.0	Nitrogen	6.32	mg/l		
V-1178							6/19	Well Sample	6/19/2013 20:29	EPA 300.0	Nitrogen	5.34	mg/l		
V-1179							6/3	Well Sample	6/3/2013 16:42	EPA 300.0	Nitrogen	5.68	mg/l		Refusal; ; left car
V-1180							6/4								Refusal; ; left car
V-1100							0/4								Not home; left card (2nd
W-1201							6/19								attempt; first visit 6/10)
N-1202							6/10							<del>                                     </del>	No home present
N-1203								Well Sample	6/19/2013 18:52	EPA 300.0	Nitrogen	17.9	mg/l		
W-1204								Well Sample	6/10/2013 18:40	EPA 300.0	Nitrogen	13.1	mg/l		
-													J		RO system present; previously
W-1205							6/10								listed as RW-1007
W-1206							6/10								Parcel does not exist
W-1207							6/10	<u> </u>							RO system present

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W-1208						'	6/10								Hach test <5 ppm
															Hach test <5 ppm;
W-1209							6/10								
N-1210	-						6/20	Well Sample	6/20/2013 8:00	EPA 300.0	Nitrogen	4.06	mg/l		
V-1211							6/10	Well Sample	6/10/2013 16:40	EPA 300.0	Nitrogen	3.06	mg/l		
V-1212	_						6/10	Well Sample	6/10/2013 16:00	EPA 300.0	Nitrogen	12.5	mg/l		Shares well w/ RW-1212A
V-1212A							9/18	Well Sample	9/18/2013 12:28	EPA 300.0	Nitrate- Nitrogen	15.1	mg/l		Sampled 9/18; (not home; left card - 6/10)
/-1213							9/18								homes on property; not home; left card 6/10; no one home in Unit 2)
V-1214							6/9	Well Sample	6/9/2013 18:12	EPA 300.0	Nitrogen	12.7	mg/l		,
/-1215	_						6/10						J .		No home present
-1216							6/10	Well Sample	6/10/2013 17:02	EPA 300.0	Nitrogen	4.56	mg/l		·
/-1217							6/10								RO system present
/-1218							6/10	Well Sample	6/10/2013 17:55	EPA 300.0	Nitrogen	26.6	mg/l		
-1219							6/10	Well Sample	6/10/2013 18:10	EPA 300.0	Nitrogen	31.1	mg/l		
-1220	_						6/10								RO system present
'-1221							6/9	Well Sample	6/9/2013 19:28	EPA 300.0	Nitrate- Nitrogen	13	mg/l		Shares well w/ RW-1222 & RW 1223
/-1222	_						6/9	Well Sample		EPA 300.0	Nitrogen	13	mg/l		Shares well w/ RW-1221
-1223	_						6/9								RO system present; shares well w/ RW-1221
-1224	_							Well Sample	6/9/2013 16:00	EPA 300.0	Nitrogen	9.26	mg/l		
1225	_						6/9								No home present
1226	_						6/19								Hach test <5 ppm
4007							0/40		0/40/0040 44.05	<b>FDA 000 0</b>	Nitrate-	54.0	,,		Sampled 9/18; (not home; left card - 1st visit 6/10; 2nd visit
-1227	-							Well Sample	9/18/2013 14:05	EPA 300.0	Nitrogen		mg/l		6/19)
-1228	-						6/19 6/20	Well Sample	6/19/2013 19:43	EPA 300.0	Nitrogen	9.08	mg/l		Not home; left card (2nd attempt; first visit 6/10)
'-1229 '-1230	-						6/10	Well Sample	6/10/2013 11:19	EPA 300.0	Nitrogen	25.9	mg/l		Owner did not give name
1230	-						0/10	vveli Sample	0/10/2013 11.19	LFA 300.0	Millogen	25.9	IIIg/I		Not home; left card (2nd
1231							6/19								attempt; first visit 6/10)
232							6/19								Not home; left card (2nd attempt; first visit 6/10)
-1233	_						6/10								No home present
4004							0/40								Not home; left card (2nd
1234	-						6/19	M-11 01-	0/0/0040 40 00	EDA 000 0	NEGOTO	0.40			attempt; first visit 6/10)
1235	_						6/9	Well Sample	6/9/2013 18:32	EPA 300.0	Nitrogen	6.16	mg/l		Hach test <5 ppm; separate we
1235A							6/19								- same parcel as RW-1235
1236								Well Sample		EPA 300.0	Nitrogen	6.16	mg/l		Shares well w/ RW-1235
1237								Well Sample	6/9/2013 19:00	EPA 300.0	Nitrogen	35.7	mg/l		
1238								Well Sample	6/9/2013 19:44	EPA 300.0	Nitrogen	13.8			
1239							6/10								RO system present
1240							9/18								Hach test <5 ppm - 9/18; (not home; left card - 1st visit 6/10; 2nd visit 6/19)

### Table 2 Summary of Existing Reverse Osmosis Systems Residential Well Sampling Yakima Valley Dairies

Sample No. Number	Street	Owner/Occupant Last Name	Owner/Occupant First Name	Latitude (DD)	Longitude (DD)	Visit Date (2013)	Туре	Sampled	Analytical Method	Analyte	Result	Units Q	nalifier Notes	Maintenance Accepted	Maintenance Complete
RW-1002						6/10							RO system present		
RW-1003						6/2							RO system present		
RW-1004						6/10							RO system present		
RW-1005						6/2							RO system present		
RW-1006						6/10							RO system present		
													RO system present - previously		
RW-1007						6/19							listed as RW-1205	6/25/2013	10/7/2013
RW-1010						6/3							RO system present	7/15/2013	9/26/2013
RW-1013						6/3							RO system present		
RW-1015						6/2							RO system present	7/16/2013	
RW-1019						6/2							RO system present		
RW-1021						6/3							RO system present		
													RO system present; uncooperative		
RW-1022						6/19							occupant		
RW-1028						6/3							RO system present		
RW-1029						6/18							RO system present		
RW-1034						6/3							RO system present		
RW-1036						6/3							RO system present		
													RO system present; shares well w/		
RW-1040						6/4							RW-1042	7/1/2013	10/1/2013
RW-1065						6/3							RO system present	7/1/2013	9/26/2013
RW-1066						5/29							RO system present		
RW-1069						6/19							RO system present		
RW-1078						5/29	Well Sample	5/29/2013 16:33	EPA 300.0	Nitrogen	12.4	mg/l	RO system present @ kitchen sink		
RW-1080						5/30							RO system present		
RW-1081						6/20							RO system present		
RW-1101						5/29	Well Sample	5/29/2013 14:20	EPA 300.0	Nitrogen	18.2	mg/l	RO system present @ kitchen sink		
RW-1113						6/6	•						RO system present		
RW-1120						6/4							RO system present		
RW-1123						6/4							RO system present		
RW-1128						6/4							RO System present - shares well with RW-1127	6/28/3013	9/18/2013
RW-1133						6/20							RO system present	7/16/2013	*
RW-1136						6/5							RO system present		
RW-1138						6/5							RO system present		
RW-1146						6/5							RO system present		
RW-1149						5/29	Well Sample	5/29/2013 11:50	EPA 300.0	Nitrogen	13.2	mg/l	RO system present @ kitchen sink	6/24/2013	9/18/2013
RW-1150						5/30	vvoii Gampie	0/20/2010 11:00	E1 71 000.0	THITOGOTT	10.2	mg/i	RO system present	0/24/2010	0/10/2010
RW-1151						6/6							RO system present		+
:W-1158							Well Sample	5/29/2013 10:08	EDA 200 0	Nitrogen	29.4	mg/l	RO system present @ kitchen sink	6/27/2013	9/25/2013
							well Sample	3/29/2013 10.00	LFA 300.0	Millogen	29.4	IIIg/I		6/25/2013	10/1/2013
RW-1162						6/20							RO system present	0/20/2013	10/1/2013
RW-1164						6/5							RO system present		+
RW-1166						6/20							RO system present	+	+
RW-1170						6/6							RO system present		+
RW-1173						5/30							RO system present	0.00	
RW-1174						5/30							RO system present	6/25/2013	9/20/2013
RW-1176						6/6							RO system present	1	
RW-1201						6/19							RO system present	9/11/2013	
RW-1205						6/10							RO system present; previously listed as RW-1007		
RW-1207						6/10							RO system present		
RW-1217						6/10							RO system present		
RW-1220						6/10							RO system present		
RW-1223						6/9							RO system present; shares well w/ RW-1221	7/1/2013	

### Table 2 Summary of Existing Reverse Osmosis Systems Residential Well Sampling Yakima Valley Dairies

Sample No.	Number	Street	Owner/Occupant Last Name	Owner/Occupant First Name	Latitude (DD)	Longitude (DD)	Visit Date (2013)	Туре	Sampled	Analytical Method	Analyte	Result	Units	Qualifier	Notes	Maintenance Accepted	Maintenance Complete
RW-1231					1	ı	6/19								RO system present	9/11/2013	
RW-1239							6/10								RO system present		

## Table 3 Summary of Hach Test Results Less Than 5 PPM Residential Well Sampling Yakima Valley Dairies

Sample No.	Number	Street	Owner/Occupant	Owner/Occupant	Latitude	Longitude	Visit Date	Notes
Campic No.	Number		Last Name	First Name	(DD)	(DD)	(2013)	
RW-1018					ı	I	6/2	Hach test <5 ppm
RW-1024							6/19	Hach test <5 ppm
RW-1032							6/3	Hach test <5 ppm
RW-1033							6/3	Hach test <5 ppm
RW-1035							6/5	Hach test <5 ppm
RW-1039							6/4	Hach test <5 ppm
RW-1043							6/4	Hach test <5 ppm
RW-1053							6/19	Hach test <5 ppm
RW-1056							5/29	Hach test <5 ppm
RW-1060							6/10	Hach test <5 ppm
								Hach test <5 ppm; owner denied access to outside water, insisted they fill sample from indoor
RW-1063							6/4	faucet, protocols not followed
RW-1067							6/4	Hach test <5 ppm
RW-1070							6/3	Hach test <5 ppm
RW-1071							5/29	Hach test <5 ppm
RW-1073							6/4	Hach test <5 ppm
RW-1074							6/3	Hach test <5 ppm
RW-1131							6/19	Hach test <5 ppm
RW-1132							6/5	Hach test <5 ppm
RW-1154							6/5	Hach test <5 ppm
RW-1163							6/6	Hach test <5 ppm
RW-1208							6/10	Hach test <5 ppm
RW-1209							6/10	Hach test <5 ppm; privac
RW-1213							9/18	Hach test <5 ppm 9/18; (not home; left card 6/10; no one home);
RW-1226							6/19	Hach test <5 ppm
RW-1235A							6/19	Hach test <5 ppm
RW-1240							9/18	Hach test <5 ppm - 9/18; (not home; left card - 1st visit 6/10; 2nd visit 6/19)

### Table 4 Drinking Water Sampling Results Summary Residential Well Sampling Yakima Valley Dairies

Sample No. Number	Street	Owner/Occupant Last Name	Owner/Occupant First Name	Latitude (DD)	Longitude (DD)	Visit Date (2013)	Туре	Sampled	Analytical Method	Analyte	Result	Units Qualifier	Notes
RW-1008				(/	ν,	6/3	Well Sample	6/3/2013 10:08	EPA 300.0	Nitrogen	20	mg/l	
RW-1011						5/30	Well Sample	5/30/2013 11:55	EPA 300.0	Nitrogen	30.6	mg/l	
RW-1012						5/30	Well Sample	5/30/2013 11:40	EPA 300.0	Nitrogen	5.63	mg/l	
RW-1014						6/3	Well Sample	6/3/2013 19:07	EPA 300.0	Nitrogen	50.9	mg/l	
RW-1017						6/3	Well Sample	6/3/2013 10:07	EPA 300.0	Nitrogen	15.9	mg/l	
RW-1020						6/3	Well Sample	6/3/2013 13:15	EPA 300.0	Nitrogen	5.4	mg/l	
RW-1025						6/18	Well Sample	6/18/2013 19:06	EPA 300.0	Nitrogen	6.16	mg/l	
RW-1026						6/3	Well Sample	6/3/2013 13:03	EPA 300.0	Nitrogen	8.3	mg/l	
RW-1027						6/3	Well Sample	6/3/2013 13:46	EPA 300.0	Nitrogen	5	mg/l	
RW-1030						5/28	Well Sample	5/28/2013 14:35	EPA 300.0	Nitrogen	7.59	mg/l	
RW-1031						6/3	Well Sample	6/3/2013 17:26	EPA 300.0	Nitrogen	5.5	mg/l	
RW-1037						6/3	Well Sample	6/3/2013 13:31	EPA 300.0	Nitrogen	5.3	mg/l	
RW-1041						6/3	Well Sample	6/3/2013 8:47	EPA 300.0	Nitrogen	36.8	mg/l	
RW-1042						6/4	Well Sample	6/4/2013 12:34	EPA 300.0	Nitrogen	39.3	mg/l	
RW-1044						5/28	Well Sample	5/28/2013 15:25	EPA 300.0	Nitrogen	8.19	mg/l	
RW-1045						5/28	Well Sample	5/28/2013 15:47	EPA 300.0	Nitrogen	15.3	mg/l	
RW-1046						5/28	Well Sample	5/28/2013 16:20	EPA 300.0	Nitrogen	9.98	mg/l	
RW-1047						5/28	Well Sample	5/28/2013 16:40	EPA 300.0	Nitrogen	10.2	mg/l	
RW-1048						6/4	Well Sample	6/4/2013 16:42	EPA 300.0	Nitrogen	9.4	mg/l	
RW-1049						5/28	Well Sample	5/28/2013 17:00	EPA 300.0	Nitrogen	9.36	mg/l	
RW-1050						5/28	Well Sample	0/20/2010 11100	EPA 300.0	Nitrogen	9.36	mg/l	Shares well w/ RW-1049
RW-1051						5/28	Well Sample	5/28/2013 17:25	EPA 300.0	Nitrogen	17.1	mg/l	
RW-1054						5/28	Well Sample	5/28/2013 17:40	EPA 300.0	Nitrogen	10.2	mg/l	
RW-1055						5/28	Well Sample	0/20/2010 11:10	EPA 300.0	Nitrogen	10	mg/l	Shares well w/ RW-1054
RW-1062						5/30	Well Sample	5/30/2013 10:05	EPA 300.0	Nitrogen	3.67	mg/l	Chares well w rev 1001
RW-1064						6/4	Well Sample	6/4/2013 14:00	EPA 300.0	Nitrogen	8.74	mg/l	
RW-1068						6/5	Well Sample	6/5/2013 10:21	EPA 300.0	Nitrogen	30.7	mg/l	
RW-1072						6/3	Well Sample	6/3/2013 17:10	EPA 300.0	Nitrogen	4.86	mg/l	
RW-1075						6/4	Well Sample	6/4/2013 10:17	EPA 300.0	Nitrogen	11.3	mg/l	
RW-1076						6/19	·	6/19/2013 9:51	EPA 300.0	Nitrogen	9.58	mg/l	
RW-1078						5/29	Well Sample	5/29/2013 16:33	EPA 300.0	Nitrogen	12.4		RO system present @ kitchen sink
RW-1082						6/6	Well Sample	0/20/2010 10:00	EPA 300.0	Nitrogen	36.5	mg/l	Shares well w/ RW-1083
RW-1083						6/6	Well Sample	6/6/2013 10:52	EPA 300.0	Nitrogen	36.5	mg/l	Griares well w/ rev 1005
RW-1084						5/29	Well Sample	5/29/2013 15:20	EPA 300.0	Nitrogen	7.91	mg/l	
RW-1085						5/29	Well Sample	5/29/2013 13:20	EPA 300.0	Nitrogen	8	mg/l	
RW-1086						5/30		5/30/2013 8:55	EPA 300.0	Nitrogen	16.8	mg/l	
RW-1087						5/30		5/30/2013 10:15	EPA 300.0	Nitrogen	3.82	mg/l	
RW-1089						5/30	Well Sample	0/00/2010 10.10	EPA 300.0	Nitrogen	16.8	mg/l	Shares well w/ RW-1086
RW-1099A						5/30	Well Sample	5/30/2013 10:50	EPA 300.0	Nitrogen	23.8	mg/l	
RW-1090B						5/30	Well Sample	5/30/2013 10:55	EPA 300.0	Nitrogen	23.6	mg/l	
RW-1090B						5/30	Well Sample	5/30/2013 15:38	EPA 300.0	Nitrogen	3.12	mg/l	
RW-1091						5/30	Well Sample	5/29/2013 15:40	EPA 300.0	Nitrogen	8.3		
RW-1092						5/29	Well Sample	5/29/2013 15.40	EPA 300.0	Nitrogen	7.87	mg/l mg/l	
RW-1094						5/29	Well Sample	5/29/2013 9:18	EPA 300.0	Nitrogen	4.59		
RW-1094							<u> </u>	5/29/2013 9:18	EPA 300.0 EPA 300.0	Nitrogen	11.8	mg/l	
RW-1095						5/29	·	5/29/2013 9:30	EPA 300.0 EPA 300.0	·	_	mg/l	
RW-1096						5/29	· · · · · · · · · · · · · · · · · · ·	5/30/2013 9:45	EPA 300.0 EPA 300.0	Nitrogen	16 10.1	mg/l	
-						5/30	•	3/30/2013 13:55		Nitrogen		mg/l	Sharas wall w/ DM/ 1007
RW-1098						5/30	Well Sample	E/00/0040 44 00	EPA 300.0	Nitrogen	10.1	mg/l	Shares well w/ RW-1097
RW-1099						5/29	Well Sample	5/29/2013 11:20	EPA 300.0	Nitrogen	14	mg/l	

### Table 4 Drinking Water Sampling Results Summary Residential Well Sampling Yakima Valley Dairies

Sample No. Number	Street	Owner/Occupant	Owner/Occupant	Latitude	Longitude	Visit Date	Туре	Sampled	Analytical	Analyte	Result	Units	Qualifier	Notes
RW-1100		Last Name	First Name	(DD)	(DD)	<b>(2013)</b> 5/29	Well Sample	5/29/2013 10:55	Method EPA 300.0	Nitrogen	10.9			
RW-1101						5/29	Well Sample	5/29/2013 14:20	EPA 300.0	Nitrogen	18.2	mg/l mg/l		RO system present @ kitchen sink
RW-1102						5/30	Well Sample	5/30/2013 9:40	EPA 300.0	Nitrogen	18.2	mg/l		NO system present & kitchen sink
RW-1103						5/29	Well Sample	5/29/2013 11:10	EPA 300.0	Nitrogen	12.3	mg/l		
RW-1105						6/20	Well Sample	6/20/2013 9:55	EPA 300.0	Nitrogen	8.58	mg/l		
RW-1107							Well Sample	5/29/2013 12:25	EPA 300.0	Nitrogen	10.4	mg/l		
RW-1108						5/29	Well Sample	5/29/2013 14:00	EPA 300.0	Nitrogen	20.3	mg/l		
RW-1109						5/29	Well Sample	0/20/2010 14:00	EPA 300.0	Nitrogen	20.3	mg/l		Shares well w/ RW-1108
RW-1110						5/30	Well Sample	5/30/2013 14:30	EPA 300.0	Nitrogen	7.62	mg/l		Griando Weil W. T.V.V. 1100
RW-1111						6/18	Well Sample	6/18/2013 19:28	EPA 300.0	Nitrogen	3.16	mg/l		
RW-1112						6/19	Well Sample	6/19/2013 17:52	EPA 300.0	Nitrogen	18.1	mg/l		
RW-1114						6/19	Well Sample	6/19/2013 17:05	EPA 300.0	Nitrogen	12.3	mg/l		
RW-1115						6/4	Well Sample	6/4/2013 18:25	EPA 300.0	Nitrogen	7.76	mg/l		
RW-1116						6/4	Well Sample	6/4/2013 19:45	EPA 300.0	Nitrogen	4.36	mg/l		
RW-1118						6/19	Well Sample	6/19/2013 17:20	EPA 300.0	Nitrogen	3.9	mg/l		
RW-1119						6/4	Well Sample	9, 19, 20 10 11 120	EPA 300.0	Nitrogen	7.76	mg/l		Shares well w/ RW-1115
RW-1121						6/4	Well Sample	6/4/2013 17:52	EPA 300.0	Nitrogen	15.6	mg/l		Onares wen in the trial
RW-1122						6/4	Well Sample	6/4/2013 18:10	EPA 300.0	Nitrogen	26.9	mg/l		
RW-1124						6/4	Well Sample	6/4/2013 17:34	EPA 300.0	Nitrogen	18.6	mg/l		
RW-1125						5/28	Well Sample	5/28/2013 16:05	EPA 300.0	Nitrogen	10.5	mg/l		
RW-1126							Well Sample		EPA 300.0	Nitrogen	13.7	mg/l		Shares well w/ RW-1127
RW-1127							Well Sample	6/4/2013 17:06	EPA 300.0	Nitrogen	13.7	mg/l		
RW-1128							Well Sample		EPA 300.0	Nitrogen	13.7	mg/l		Shares well w/ RW-1127
1										Nitrate-	1	3		Sampled 9/18; (not home; left card
RW-1129						9/18	Well Sample	9/18/2013 13:20	EPA 300.0	Nitrogen	28.5	mg/l		1st visit 6/5; 2nd visit 6/19)
RW-1130						6/5	Well Sample	6/5/2013 13:41	EPA 300.0	Nitrogen	3.4	mg/l		
RW-1134							Well Sample	6/19/2013 14:14	EPA 300.0	Nitrogen	7.08	mg/l		
RW-1139							Well Sample	6/5/2013 17:19	EPA 300.0	Nitrate-Nitroge	n 30.6	mg/l		
RW-1140						6/5	Well Sample		EPA 300.0	Nitrogen	30.6	mg/l		Shares well w/ RW-1139
RW-1141						6/6	Well Sample	6/6/2013 11:16	EPA 300.0	Nitrate-Nitroge	n 30.2	mg/l		
RW-1142						6/6	Well Sample	6/6/2013 14:08	EPA 300.0	Nitrate-Nitroge	n 18.5	mg/l		
RW-1143						6/6	Well Sample		EPA 300.0	Nitrogen	18.5	mg/l		Shares well w/ RW-1142
RW-1145						6/5	Well Sample	6/5/2013 17:56		Nitrate-Nitroge	n 27.3	mg/l		
RW-1149							Well Sample	5/29/2013 11:50		Nitrogen	13.2	mg/l		RO system present @ kitchen sink
RW-1152							Well Sample	5/29/2013 16:00	EPA 300.0	Nitrogen	15.8	mg/l		
RW-1153							Well Sample	6/5/2013 18:32		Nitrate-Nitroge		mg/l		
RW-1158							Well Sample	5/29/2013 10:08	EPA 300.0	Nitrogen	29.4	mg/l		RO system present @ kitchen sink
RW-1159							Well Sample	6/3/2013 10:31	EPA 300.0	Nitrogen	12	mg/l		
RW-1160							Well Sample	6/5/2013 12:23	EPA 300.0	Nitrogen	9.16	mg/l		
RW-1161							Well Sample	6/5/2013 12:11	EPA 300.0	Nitrogen	5.16	mg/l		
RW-1165							Well Sample	6/5/2013 19:26	EPA 300.0	Nitrate-Nitroge	n 9.3	mg/l		
RW-1169							Well Sample	6/10/2013 15:08	EPA 300.0	Nitrogen	9.72	mg/l		
RW-1171							Well Sample	5/30/2013 15:00	EPA 300.0	Nitrogen	12.7	mg/l		
RW-1172							Well Sample	5/29/2013 14:35	EPA 300.0	Nitrogen	9.72	mg/l		
RW-1177							Well Sample	6/19/2013 20:15	EPA 300.0	Nitrogen	6.32	mg/l		
RW-1178							Well Sample	6/19/2013 20:29	EPA 300.0	Nitrogen	5.34	mg/l		
RW-1179							Well Sample	6/3/2013 16:42	EPA 300.0	Nitrogen	5.68	mg/l		
RW-1203							Well Sample	6/19/2013 18:52	EPA 300.0	Nitrogen	17.9	mg/l		
RW-1204						6/10	Well Sample	6/10/2013 18:40	EPA 300.0	Nitrogen	13.1	mg/l		

### Table 4 Drinking Water Sampling Results Summary Residential Well Sampling Yakima Valley Dairies

Sample No. Number	Street	Owner/Occupant Last Name	Owner/Occupant First Name	Latitude (DD)	Longitude (DD)	Visit Date (2013)	Туре	Sampled	Analytical Method	Analyte	Result	Units Qualifier	Notes
RW-1210	I			ı	I	6/20	Well Sample	6/20/2013 8:00	EPA 300.0	Nitrogen	4.06	mg/l	
RW-1211						6/10	Well Sample	6/10/2013 16:40	EPA 300.0	Nitrogen	3.06	mg/l	
RW-1212						6/10	Well Sample	6/10/2013 16:00	EPA 300.0	Nitrogen	12.5	mg/l	Shares well w/ RW-1212A
										Nitrate-			Sampled 9/18; (not home; left card -
RW-1212A						9/18	Well Sample	9/18/2013 12:28	EPA 300.0	Nitrogen	15.1	mg/l	6/10)
RW-1214						6/9	Well Sample	6/9/2013 18:12	EPA 300.0	Nitrogen	12.7	mg/l	
RW-1216						6/10	Well Sample	6/10/2013 17:02	EPA 300.0	Nitrogen	4.56	mg/l	
RW-1218						6/10	Well Sample	6/10/2013 17:55	EPA 300.0	Nitrogen	26.6	mg/l	
RW-1219						6/10	Well Sample	6/10/2013 18:10	EPA 300.0	Nitrogen	31.1	mg/l	
							'			Nitrate-			Shares well w/ RW-1222 & RW-
RW-1221						6/9	Well Sample	6/9/2013 19:28	EPA 300.0	Nitrogen	13	mg/l	1223
RW-1222						6/9	Well Sample		EPA 300.0	Nitrogen	13	mg/l	Shares well w/ RW-1221
RW-1224						6/9	Well Sample	6/9/2013 16:00	EPA 300.0	Nitrogen	9.26	mg/l	
							·			Nitrate-			Sampled 9/18; (not home; left card ·
RW-1227						9/18	Well Sample	9/18/2013 14:05	EPA 300.0	Nitrogen	51.6	mg/l	1st visit 6/10; 2nd visit 6/19)
RW-1228						6/19	Well Sample	6/19/2013 19:43	EPA 300.0	Nitrogen	9.08	mg/l	
RW-1230						6/10	Well Sample	6/10/2013 11:19	EPA 300.0	Nitrogen	25.9	mg/l	Owner did not give name
RW-1235						6/9	Well Sample	6/9/2013 18:32	EPA 300.0	Nitrogen	6.16	mg/l	_
RW-1236						6/9	Well Sample		EPA 300.0	Nitrogen	6.16	mg/l	Shares well w/ RW-1235
RW-1237						6/9	Well Sample	6/9/2013 19:00	EPA 300.0	Nitrogen	35.7	mg/l	
RW-1238						6/9	Well Sample	6/9/2013 19:44	EPA 300.0	Nitrogen	13.8	mg/l	

# Table 5 Analytical Quality Control Sample Summary Residential Well Sampling Yakima Valley Dairies

Sample No.	Туре	Sampled	Analytical Method	Analyte	Result	Units	Qualifier	Notes
		- /- /		Nitrate-				
RW-2068	Duplicate of RW-1068	6/5/2013 10:22	EPA 300.0	Nitrogen	29.4	mg/l		
RW-2075	Duplicate of RW-1075	6/4/2013 10:20	EPA 300.0	Nitrate-	11.2	ma/l		
KVV-2075	Duplicate of RVV-1075	0/4/2013 10.20	EPA 300.0	Nitrogen Nitrate-	11.2	mg/l		
RW-2093	Duplicate of RW-1093	5/29/2013 9:00	EPA 300.0	Nitrogen	7.84	mg/l		
				Nitrate-		1119/1		
RW-2100	Duplicate of RW-1100	5/29/2013 10:57	EPA 300.0	Nitrogen	10.9	mg/l		
				Nitrate-				
RW-2102	Duplicate of RW-1102	5/30/2013 9:45	EPA 300.0	Nitrogen	18.4	mg/l		
DW 0407	D	F/00/0040 40 00	EDA 000 0	Nitrate-	40.4	//		
RW-2107	Duplicate of RW-1107	5/29/2013 12:30	EPA 300.0	Nitrogen	10.4	mg/l		
RW-2112	Duplicate of RW-1112	6/19/2013 18:00	EPA 300.0	Nitrate- Nitrogen	17.5	ma/l		
NV-2112	Duplicate of KW-1112	0/19/2013 10:00	EFA 300.0	Nitrate-	17.5	mg/l		
RW-2127	Duplicate of RW-1127	6/4/2013 17:07	EPA 300.0	Nitrogen	14	mg/l		
	Duplicate of the first	0, 1,2010 17107	217100010	Nitrate-		9/.		
RW-2129	Duplicate of RW-1129	9/18/2013 13:20	EPA 300.0	Nitrogen	27.1	mg/l		
				Nitrate-		3		
RW-2134	Duplicate of RW-1134	6/19/2013 14:20	EPA 300.0	Nitrogen	7.2	mg/l		
				Nitrate-				
RW-2141	Duplicate of RW-1141	6/6/2013 11:20	EPA 300.0	Nitrogen	32.6	mg/l		
				Nitrate-				
RW-2152	Duplicate of RW-1152	5/29/2013 16:05	EPA 300.0	Nitrogen	15.6	mg/l		
DW 0450	Developed of DIM 4450	0/0/0040 40:05	EDA 200 0	Nitrate-	40	/1		
RW-2159	Duplicate of RW-1159	6/3/2013 10:35	EPA 300.0	Nitrogen Nitrate-	12	mg/l		
RW-2210	Duplicate of RW-1210	6/20/2013 8:20	EPA 300.0	Nitrogen	3.78	mg/l		
1777-2210	Duplicate of 100-1210	0/20/2013 0.20	LI A 300.0	Nitrate-	3.70	1119/1	1	
RW-2212	Duplicate of RW-1212	6/10/2013 16:05	EPA 300.0	Nitrogen	12.3	mg/l		
	- spinone or the test			Nitrate-		1119/1		
RW-2224	Duplicate of RW-1224	6/9/2013 16:03	EPA 300.0	Nitrogen	9.28	mg/l		
	·			Nitrate-				
RW-3025	Field Blank	6/18/2013 19:00	EPA 300.0	Nitrogen	0.2	mg/l	U	
				Nitrate-				
RW-3030	Field Blank	5/28/2013 14:20	EPA 300.0	Nitrogen	0.2	mg/l	U	
D144 00 44		0/0/0040		Nitrate-		,,	1	
RW-3041	Field Blank	6/3/2013 8:40	EPA 300.0	Nitrogen	0.2	mg/l	U	
DW 2040	Field Blank	6/4/2012 16:25	EPA 300.0	Nitrate-	0.2		U	
RW-3048	Field Blank	6/4/2013 16:35	EPA 300.0	Nitrogen Nitrate-	0.2	mg/l	0	
RW-3083	Field Blank	6/6/2013 9:00	EPA 300.0	Nitrogen	0.2	mg/l	U	
1.77 0000	ו ופוע טומווג	0/0/2010 8.00	LI A 300.0	Nitrate-	0.2	ilig/i		
RW-3085	Field Blank	5/29/2013 8:00	EPA 300.0	Nitrogen	0.2	mg/l	U	
		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		Nitrate-	<del></del>			
RW-3086	Field Blank	5/30/2013 8:50	EPA 300.0	Nitrogen	0.2	mg/l	U	
				Nitrate-				
RW-3097	Field Blank	5/30/2013 13:50	EPA 300.0	Nitrogen	0.2	mg/l	U	

# Table 5 Analytical Quality Control Sample Summary Residential Well Sampling Yakima Valley Dairies

Sample No.	Туре	Sampled	Analytical Method	Analyte	Result	Units	Qualifier	Notes
				Nitrate-				
RW-3108	Field Bank	5/29/2013 13:50	EPA 300.0	Nitrogen	0.2	mg/l	U	
DW 0444	Field Dlenk	0/40/2042 47:00	EDA 200 0	Nitrate-	0.0	a: /l	1.1	
RW-3114	Field Blank	6/19/2013 17:00	EPA 300.0	Nitrogen Nitrate-	0.2	mg/l	U	
RW-3139	Field Blank	6/5/2013 17:15	EPA 300.0	Nitrogen	0.2	mg/l	U	
100	I leid Dialik	0/3/2013 17.13	LI A 300.0	Nitrate-	0.2	IIIg/I		
RW-3169	Field Blank	6/10/2013 14:55	EPA 300.0	Nitrogen	0.2	mg/l	U	
				Nitrate-	-	3		
RW-3179	Field Blank	6/3/2013 16:40	EPA 300.0	Nitrogen	0.2	mg/l	U	
				Nitrate-				
RW-3212A	Field Blank	9/18/2013 11:30	EPA 300.0	Nitrogen	0.2	mg/l	U	
				Nitrate-				
RW-3214	Field Blank	6/9/2013 18:05	EPA 300.0	Nitrogen	0.2	mg/l	U	
	140/1405 ( 5)4/ 0/00			Nitrate-		04.5		
13E0178-MS1	MS/MSD of RW-2100	5/30/2013	EPA 300.0	Nitrogen	100	% Recovery		
40E0470 MCD4	MC/MCD of DW 0400	F /00 /004 0	EDA 200 0	Nitrate-	400	0/ December /		
13E0178-MSD1	MS/MSD of RW-2100	5/30/2013	EPA 300.0	Nitrogen Nitrate-	100	% Recovery		
13E0187-MS1	MS/MSD of RW-3097	5/31/2013	EPA 300.0	Nitrogen	95	% Recovery		
1320107-10101	WO/WOD OF IXW-3097	3/31/2013	LI A 300.0	Nitrate-	95	70 Recovery		
13E0187-MSD1	MS/MSD of RW-3097	5/31/2013	EPA 300.0	Nitrogen	94	% Recovery		
1020107 111021	1110/11102 01 1111 0001	0/01/2010	2.7.000.0	Nitrate-	0.	70 110001019		
13F0022-MS1	MS/MSD of RW-3179	6/5/2013	EPA 300.0	Nitrogen	96.6	% Recovery		
				Nitrate-				
13F0022-MSD1	MS/MSD of RW-3179	6/5/2013	EPA 300.0	Nitrogen	96.4	% Recovery		
				Nitrate-				
13F0034-MS1	MS/MSD of RW-3048	6/6/2013	EPA 300.0	Nitrogen	97	% Recovery		
				Nitrate-				
13F0034-MSD1	MS/MSD of RW-3048	6/6/2013	EPA 300.0	Nitrogen	97	% Recovery		
4050040 MO4	MC/MCD -	0/7/0040	EDA 200 0	Nitrate-	00.4	0/ Danasana		
13F0043-MS1	MS/MSD of RW-3083	6/7/2013	EPA 300.0	Nitrogen	96.1	% Recovery		
13F0043-MSD1	MS/MSD of RW-3083	6/7/2013	EPA 300.0	Nitrate- Nitrogen	96.4	% Recovery		
131 0043-1013D1	WIS/WISD OF IXW-3003	0/1/2013	LFA 300.0	Nitrate-	90.4	76 IXECOVERY		
13F0062-MS1	MS/MSD of RW-3214	6/11/2013	EPA 300.0	Nitrogen	93.7	% Recovery		
101 0002 1110 1	WO/WOD OF TOW OLT I	0/11/2010	217(000.0	Nitrate-	30.1	70 11000 VOI y		
13F0062-MSD1	MS/MSD of RW-3214	6/11/2013	EPA 300.0	Nitrogen	94.2	% Recovery		
		6, 1, 1, 2, 1, 2		Nitrate-	5 11-	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
13F0067-MS1	MS/MSD of RW-3169	6/11/2013	EPA 300.0	Nitrogen	98.1	% Recovery		
				Nitrate-				
13F0067-MSD1	MS/MSD of RW-3169	6/11/2013	EPA 300.0	Nitrogen	97.9	% Recovery		
				Nitrate-				
13F0120-MS1	MS/MSD of RW-3025	6/20/2013	EPA 300.0	Nitrogen	93.9	% Recovery		
4050400 14504	MO/MOD - ( D) M 000=	0/00/00 10	EDA 000 0	Nitrate-	<b>.</b>	0/ 5		
13F0120-MDS1	MS/MSD of RW-3025	6/20/2013	EPA 300.0	Nitrogen	94.6	% Recovery		

### Table 6 Drinking Water Sampling Results Less Than MCL Summary Residential Well Sampling Yakima Valley Dairies

Sample No.	Number	Street	Owner/Occupant Last Name	Owner/Occupant First Name	Latitude (DD)	Longitude (DD)	Visit Date (2013)	Туре	Sampled	Analytical Method	Analyte	Resul t	Unit s	Qualifier	Notes
RW-1012				I	I		5/30	Sample	5/30/2013 11:40	EPA 300.0	Nitrogen	5.63	mg/l		
RW-1020							6/3	Sample	6/3/2013 13:15	EPA 300.0	Nitrogen	5.4	mg/l		
RW-1025							6/18	Sample	6/18/2013 19:06	EPA 300.0	Nitrogen	6.16	mg/l		
RW-1026							6/3	Sample	6/3/2013 13:03	EPA 300.0	Nitrogen	8.3	mg/l		
RW-1027							6/3	Sample	6/3/2013 13:46	EPA 300.0	Nitrogen	5	mg/l		
RW-1030							5/28	Sample	5/28/2013 14:35	EPA 300.0	Nitrogen	7.59	mg/l		
RW-1031							6/3	Sample	6/3/2013 17:26	EPA 300.0	Nitrogen	5.5	mg/l		
RW-1037							6/3	Sample	6/3/2013 13:31	EPA 300.0	Nitrogen	5.3	mg/l		
RW-1044							5/28	Sample	5/28/2013 15:25	EPA 300.0	Nitrogen	8.19	mg/l		
RW-1046							5/28	Sample	5/28/2013 16:20	EPA 300.0	Nitrogen	9.98	mg/l		
RW-1048							6/4	Sample	6/4/2013 16:42	EPA 300.0	Nitrogen	9.4	mg/l		
RW-1049							5/28	Sample	5/28/2013 17:00	EPA 300.0	Nitrogen	9.36	mg/l		
RW-1050							5/28	Sample		EPA 300.0	Nitrogen	9.36	mg/l		1049
RW-1062							5/30	Sample	5/30/2013 10:05	EPA 300.0	Nitrogen	3.67	mg/l		
RW-1064							6/4	Sample	6/4/2013 14:00	EPA 300.0	Nitrogen	8.74	mg/l		
RW-1072							6/3	Sample	6/3/2013 17:10	EPA 300.0		4.86	mg/l		
RW-1076							6/19	Sample	6/19/2013 9:51	EPA 300.0	Nitrogen	9.58	mg/l		
RW-1084							5/29	Sample	5/29/2013 15:20	EPA 300.0	Nitrogen	7.91	mg/l		
RW-1085							5/29	Sample	5/29/2013 8:15	EPA 300.0	Nitrogen	8	mg/l		
RW-1087							5/30	Sample	5/30/2013 10:15	EPA 300.0	Nitrogen	3.82	mg/l		
RW-1091							5/30	Sample	5/30/2013 15:38	EPA 300.0	Nitrogen	3.12	mg/l		
RW-1092							5/29	Sample	5/29/2013 15:40	EPA 300.0	Nitrogen	8.3	mg/l		
RW-1093							5/29	Sample	5/29/2013 8:57	EPA 300.0	Nitrogen	7.87	mg/l		
RW-1094							5/29	Sample	5/29/2013 9:18	EPA 300.0	Nitrogen	4.59	mg/l		
RW-1105							6/20	Sample	6/20/2013 9:55	EPA 300.0	Nitrogen	8.58	mg/l		
RW-1110							5/30	Sample	5/30/2013 14:30	EPA 300.0	Nitrogen	7.62	mg/l		
RW-1111							6/18	Sample	6/18/2013 19:28	EPA 300.0		3.16	mg/l		
RW-1115							6/4	Sample	6/4/2013 18:25	EPA 300.0	Nitrogen	7.76	mg/l		
RW-1116							6/4	Sample	6/4/2013 19:45	EPA 300.0	Nitrogen	4.36	mg/l		
RW-1118							6/19	Sample	6/19/2013 17:20	EPA 300.0	Nitrogen	3.9	mg/l		
RW-1119							6/4	Sample		EPA 300.0	Nitrogen	7.76	mg/l		1115
RW-1130							6/5	Sample	6/5/2013 13:41	EPA 300.0		3.4	mg/l		
RW-1134							6/19	Sample	_	EPA 300.0		7.08			
RW-1153							6/5	Sample	6/5/2013 18:32		Nitrate-Nitrogen		mg/l		
RW-1160							6/5	Sample	6/5/2013 12:23	EPA 300.0		9.16	mg/l		
RW-1161							6/5	Sample	6/5/2013 12:11	EPA 300.0		5.16	mg/l		
RW-1165							6/5	Sample	6/5/2013 19:26		Nitrate-Nitrogen		mg/l		
RW-1169							6/10	Sample	6/10/2013 15:08	EPA 300.0		9.72	mg/l		
RW-1103							5/29	Sample	5/29/2013 14:35	EPA 300.0		9.72	mg/l		
RW-1172							6/19	Sample	6/19/2013 20:15	EPA 300.0		6.32	mg/l		
RW-1178							6/19	Sample	6/19/2013 20:19	EPA 300.0		5.34	mg/l		
RW-1179							6/3	Sample	6/3/2013 16:42	EPA 300.0	Nitrogen	5.68	mg/l		
RW-1210							6/20	Sample	6/20/2013 10:42	EPA 300.0		4.06	mg/l		
RW-1210							6/20	Sample	6/10/2013 16:40	EPA 300.0		3.06	mg/l	<del> </del>	
RW-1211							6/10	Sample	6/10/2013 17:02	EPA 300.0	Nitrogen	4.56	mg/l		
RW-1216 RW-1224							•	1	6/9/2013 17:02	EPA 300.0		9.26		<del> </del>	
							6/9	Sample			Nitrogen		mg/l		
RW-1228							6/19	Sample	6/19/2013 19:43	EPA 300.0	Nitrogen	9.08	mg/l		

### Table 6 Drinking Water Sampling Results Less Than MCL Summary Residential Well Sampling Yakima Valley Dairies

Sample No.	Number	Street	Owner/Occupant Last Name	Owner/Occupant First Name	Latitude (DD)	Longitude (DD)	Visit Date (2013)	Туре	Sampled	Analytical Method	Analyte	Resul Unit	Qualifier	Notes
RW-1235			I		ı	ı	6/9	Sample	6/9/2013 18:32	EPA 300.0	Nitrogen	6.16 mg/l		
RW-1236							6/9	Sample		EPA 300.0	Nitrogen	6.16 mg/l		1235

### Table 7 Drinking Water Sampling Results Greater Than MCL Summary Residential Well Sampling Yakima Valley Dairies

ample o.	Number	Street	Owner/Occupant Last Name	Owner/Occupant First Name	Latitude (DD)	Longitude (DD)	Visit Date (2013)	Туре	Sampled	Analytical Method	Analyte	Result	Units	Qualifier	Notes	RO Accepted	RO Install Complete
W-1008	1		1			ı	6/3	· · · · ·	6/3/2013 10:08	EPA 300.0	Nitrogen	20	mg/l				
W-1011							5/30		5/30/2013 11:55	EPA 300.0	Nitrogen	30.6	mg/l			87/2013	10/7/2013
W-1014							6/3	· · · · · ·	6/3/2013 19:07	EPA 300.0	Nitrogen	50.9	mg/l				
W-1017							6/3	· · · · · ·	6/3/2013 10:07	EPA 300.0	Nitrogen	15.9	mg/l			7/40/0040	
W-1041 W-1042							6/3 6/4		6/3/2013 8:47 6/4/2013 12:34	EPA 300.0 EPA 300.0	Nitrogen Nitrogen	36.8 39.3	mg/l			7/10/2013 10/7/2013	
N-1042 N-1045							5/28	·	5/28/2013 15:47	EPA 300.0	Nitrogen	15.3	mg/l mg/l			10/7/2013	
V-1043 V-1047							5/28		5/28/2013 16:40	EPA 300.0	Nitrogen	10.2	mg/l				
V-1047							5/28	·	5/28/2013 17:25	EPA 300.0	Nitrogen	17.1	mg/l				
V-1054							5/28		5/28/2013 17:40	EPA 300.0	Nitrogen	10.2	mg/l			6/26/2013	9/24/2013
/-1055							5/28	· · · · ·	5/28/2013 17:40	EPA 300.0	Nitrogen	10.2	mg/l			6/26/2013	9/24/2013
/-1068							6/5	-	6/5/2013 10:21	EPA 300.0	Nitrogen	30.7	mg/l			6/24/2013	9/27/2013
/-1075							6/4	Well Sample	6/4/2013 10:17	EPA 300.0	Nitrogen	11.3	mg/l			6/24/2013	9/20/2013
-1078							5/29	· · · · ·	5/29/2013 16:33	EPA 300.0	Nitrogen	12.4	mg/l		RO system present @ kitchen sink		
/-1082							6/6	Well Sample		EPA 300.0	Nitrogen	36.5	mg/l		Shares well w/ RW-1083		
/-1083							6/6	Well Sample	6/6/2013 10:52	EPA 300.0	Nitrogen	36.5	mg/l				
/-1086							5/30	Well Sample	5/30/2013 8:55	EPA 300.0	Nitrogen	16.8	mg/l				
/-1089							5/30	Well Sample		EPA 300.0	Nitrogen	16.8	mg/l		Shares well w/ RW-1086		
/-1090A							5/30	Well Sample	5/30/2013 10:50	EPA 300.0	Nitrogen	23.8	mg/l			8/7/2013	10/1/2013
/-1090B							5/30	Well Sample	5/30/2013 10:55	EPA 300.0	Nitrogen	23	mg/l			8/7/2013	10/1/2013
/-1095							5/29	·	5/29/2013 9:30	EPA 300.0	Nitrogen	11.8	mg/l				
/-1096							5/29		5/29/2013 9:45	EPA 300.0	Nitrogen	16	mg/l			7/3/2013	9/26/2013
/-1097							5/30	· · · · ·	5/30/2013 13:55	EPA 300.0	Nitrogen	10.1	mg/l			6/25/2013	9/20/2013
V-1098							5/30	Well Sample	See notes	EPA 300.0	Nitrogen	10.1	mg/l		Shares well w/ RW-1097	6/24/2013	9/27/2013
/-1099							5/29	· · · · ·	5/29/2013 11:20	EPA 300.0	Nitrogen	14	mg/l				
/-1100							5/29		5/29/2013 10:55	EPA 300.0	Nitrogen	10.9	mg/l				
/-1101							5/29		5/29/2013 14:20	EPA 300.0	Nitrogen	18.2	mg/l		RO system present @ kitchen sink	7///00/10	0/05/00/0
/-1102							5/30	· · · · · ·	5/30/2013 9:40	EPA 300.0	Nitrogen	18.2	mg/l			7/1/2013	9/25/2013
/-1103							5/29	·	5/29/2013 11:10	EPA 300.0	Nitrogen	12.3	mg/l				+
V-1107 V-1108							5/29	· · · · · ·	5/29/2013 12:25 5/29/2013 14:00	EPA 300.0 EPA 300.0	Nitrogen	20.3	mg/l			7/0/0040	0/40/0042
							5/29	Well Sample	5/29/2013 14.00	EPA 300.0	Nitrogen		mg/l		Shares well w/ RW-1108	7/9/2013	9/19/2013
V-1109 V-1112							5/29 6/19	·	6/19/2013 17:52	EPA 300.0	Nitrogen	20.3 18.1	mg/l		Shares well w/ RVV-1106		+
V-1112 V-1114							6/19	·	6/19/2013 17:05	EPA 300.0	Nitrogen Nitrogen	12.3	mg/l mg/l				
V-1114 V-1121							6/4		6/4/2013 17:52	EPA 300.0	Nitrogen	15.6	mg/l				
/-1122							6/4	· · · · · ·	6/4/2013 18:10	EPA 300.0	Nitrogen	26.9	mg/l				
V-1124							6/4	•	6/4/2013 17:34	EPA 300.0	Nitrogen	18.6	mg/l				
<i>l</i> -1125							5/28	· · · · · ·	5/28/2013 16:05	EPA 300.0	Nitrogen	10.5	mg/l			7/10/2013	9/27/2013
/-1126							6/4	Well Sample		EPA 300.0	Nitrogen	13.7	mg/l		Shares well w/ RW-1127	6/28/2013	9/18/2013
V-1127							6/4	· · · · · ·	6/4/2013 17:06	EPA 300.0	Nitrogen	13.7	mg/l		Shares well with RW-1126 and RW-1128	6/28/2013	10/7/2013
V-1128							6/4	Well Sample		EPA 300.0	Nitrogen	13.7	mg/l		Shares well w/ RW-1127		
											Nitrate-				Sampled 9/18; (not home; left card - 1st visit		
/-1129							9/18	Well Sample	9/18/2013 13:20	EPA 300.0	Nitrogen	28.5	mg/l		6/5; 2nd visit 6/19)	9/18/2013	
/-1139							6/5		6/5/2013 17:19		Nitrate-Nitrogen		mg/l				
/-1140							6/5	Well Sample		EPA 300.0	Nitrogen	30.6	mg/l		Shares well w/ RW-1139		
/-1141									6/6/2013 11:16	EPA 300.0	Nitrate-Nitrogen	30.2	mg/l				
-1142							6/6		6/6/2013 14:08	EPA 300.0	Nitrate-Nitrogen	18.5	mg/l		01		-
/-1143							6/6 6/F	Well Sample		EPA 300.0	Nitrogen	18.5	mg/l		Shares well w/ RW-1142		
/-1145 / 1140							6/5	<del> </del>	6/5/2013 17:56 5/29/2013 11:50	EPA 300.0	Nitrate-Nitrogen	27.3	mg/l		PO system propert @ kitches sink		
V-1149 V-1152							5/29 5/29		5/29/2013 11:50 5/29/2013 16:00	EPA 300.0 EPA 300.0	Nitrogen	13.2 15.8	mg/l		RO system present @ kitchen sink	7/8/2013	10/1/2013
/-1152 /-1158									5/29/2013 16:00	EPA 300.0	Nitrogen Nitrogen	29.4	mg/l mg/l		RO system present @ kitchen sink	1/0/2013	10/1/2013
/-1158 /-1159									6/3/2013 10:31	EPA 300.0	Nitrogen	12	mg/l		TO System prosont & Ritchell Sink	6/23/2013	9/19/2013
/-1139 /-1171									5/30/2013 15:00	EPA 300.0	Nitrogen	12.7	mg/l			3/23/2013	0/10/2010
/-1203							6/19		6/19/2013 18:52	EPA 300.0	Nitrogen	17.9	mg/l			8/11/2013	9/17/2013
V-1204							6/10		6/10/2013 18:40	EPA 300.0	Nitrogen	13.1	mg/l				5,, 2510
/-1212									6/10/2013 16:00	EPA 300.0	Nitrogen	12.5	mg/l		Shares well w/ RW-1212A	6/22/2013	9/19/2013
V-1212A							9/18		9/18/2013 12:28	EPA 300.0	Nitrogen	15.1	mg/l		Sampled 9/18; (not home; left card - 6/10)	9/18/2013	
/-1214							6/9		6/9/2013 18:12	EPA 300.0	Nitrogen	12.7	mg/l		, , , , , , , , , , , , , , , , , , , ,		
V-1218							6/10		6/10/2013 17:55	EPA 300.0	Nitrogen	26.6	mg/l			6/27/2013	9/25/2013
V-1219							6/10		6/10/2013 18:10	EPA 300.0	Nitrogen	31.1	mg/l				
V-1221							6/9		6/9/2013 19:28	EPA 300.0	Nitrogen	13	mg/l		Shares well w/ RW-1222 & RW-1223		
V-1222							6/9	Well Sample		EPA 300.0	Nitrogen	13	mg/l		Shares well w/ RW-1221		
											Nitrate-				Sampled 9/18; (not home; left card - 1st visit		
/-1227							9/18		9/18/2013 14:05	EPA 300.0	Nitrogen	51.6	mg/l		6/10; 2nd visit 6/19)	9/18/2013	

### Table 7 Drinking Water Sampling Results Greater Than MCL Summary Residential Well Sampling Yakima Valley Dairies

Sample No.	Number	Street	Owner/Occupant Last Name	Owner/Occupant First Name	Latitude (DD)	Longitude (DD)	Visit Date (2013)	Туре	Sampled	Analytical Method	Analyte	Result	Units	Qualifier	Notes	RO Accepted	RO Install Complete
RW-1230					ı		6/10	Well Sample	6/10/2013 11:19	EPA 300.0	Nitrogen	25.9	mg/l		Owner did not give name		
RW-1237							6/9	Well Sample	6/9/2013 19:00	EPA 300.0	Nitrogen	35.7	mg/l				i
RW-1238	_						6/9	Well Sample	6/9/2013 19:44	EPA 300.0	Nitrogen	13.8	mg/l				

							_					
											Owner,	Owner,
Sample ID	Parcel #	R-T-S	Parcel	Latitude	Longitude	Number	Street	City	State	Zipcode	Last Name	First Name
RW-1008								ı			ı	
RW-1011												
RW-1014												
RW-1017	_											
RW-1041	-											
RW-1042	_											
RW-1045	_											
RW-1047	_											
RW-1051	-											
RW-1054	-											
RW-1055	_											
RW-1066	-		_									
RW-1068	-											
RW-1075	-											
RW-1078	-											
RW-1082												
RW-1083 RW-1086												
	-		_									
RW-1089	-											
RW-1090A												
RW-1090B	-											
RW-1095	-		_									
1000	-											
RW-1096												
RW-1097	-											
RW-1098	-											
RW-1099	-											
RW-1100												
RW-1101												
RW-1102												
RW-1103												
RW-1107												
RW-1108												
RW-1109												
RW-1112												
RW-1114												
RW-1121												
RW-1122												
RW-1124												
RW-1125												
RW-1126												

											Owner,	Owner,
Sample ID	Parcel #	R-T-S	Parcel	Latitude	Longitude	Number	Street	City	State	Zipcode	Last Name	First Name
RW-1127												
RW-1129												
RW-1139												
RW-1140												
RW-1141												
RW-1142												
RW-1143												
RW-1145												
RW-1149												
RW-1152												
RW-1159												
RW-1171												
RW-1203												
RW-1204	_											
RW-1212	_											
RW-1212A	_											
RW-1214	_											
RW-1218	_											
RW-1219	_											
RW-1221												
RW-1222												
RW-1230												
RW-1237												
RW-1238		1										

		Occupant,	Occupant,							Property Visit	Sample
Sample ID	Organization Name	Last Name	First Name	Renter	Mailing Address	City	State	Zipcode	Phone No.	Date	Collected
RW-1008	<u> </u>					,		•		3-Jun	У
RW-1011										30-May	у
RW-1014										3-Jun	у
RW-1017										3-Jun	у
RW-1041										3-Jun	у
RW-1042									_	4-Jun	У
RW-1045										28-May	У
RW-1047										28-May	У
RW-1051										28-May	у
RW-1054									-	28-May	у
RW-1055									-	28-May	n
DV4 4000										00.14	
RW-1066										29-May	n
RW-1068									-	5-Jun	у
RW-1075 RW-1078									-	4-Jun 29-May	y V
RW-1078									-	6-Jun	n y
RW-1082										6-Jun	V
RW-1085									-	30-May	у У
RW-1089									-	30-May	n y
1003									-	30-iviay	
RW-1090A										30-May	V
RW-1090B									-	30-May	
RW-1095										29-May	y V
111111111111111111111111111111111111111		T.							-		
RW-1096										29-May	V
RW-1097		Ï								30-May	y
RW-1098		Ï								30-May	n
RW-1099		Ï								29-May	У
RW-1100									-	29-May	у
RW-1101										29-May	у
RW-1102										30-May	у
RW-1103										29-May	у
RW-1107										29-May	У
RW-1108										29-May	у
RW-1109										29-May	n
RW-1112										19-Jun	у
RW-1114										19-Jun	у
RW-1121										4-Jun	у
DW 4400										4 1	
RW-1122										4-Jun	у
RW-1124										4-Jun	у
RW-1125										28-May	У
RW-1126										4-Jun	n

		Occupant,	Occupant,							Property Visit	Sample
Sample ID	Organization Name	Last Name	First Name	Renter	Mailing Address	City	State	Zipcode	Phone No.	Date	Collected
RW-1127		-								4-Jun	у
RW-1129		-								18-Sep	у
RW-1139		_								5-Jun	у
RW-1140										5-Jun	n
RW-1141										6-Jun	у
RW-1142										6-Jun	у
RW-1143										6-Jun	n
RW-1145										5-Jun	у
RW-1149										29-May	У
RW-1152										29-May	у
RW-1159										3-Jun	у
RW-1171										30-May	у
RW-1203										19-Jun	У
RW-1204										10-Jun	У
RW-1212										10-Jun	У
RW-1212A										18-Sep	У
RW-1214										9-Jun	У
RW-1218	<u> </u>	-								10-Jun	V
RW-1219		-								10-Jun	V
RW-1221		-								9-Jun	V
RW-1222										9-Jun	n
RW-1230										10-Jun	У
RW-1237										9-Jun	V
RW-1238										9-Jun	У

Table 8
Reverse Osmosis System Install Summary
Residential Well Sampling
Yakima Valley Dairies

	Hach Test	NO3		Mailed Offer		
Commis ID		Sample	Notes		Daamamaa	DO Installed
Sample ID	Result	Result	Notes	Letter	Response	RO Installed
RW-1008	20	20	Originally DW 1012 in a dynasta att.	У	No Response	
D) // 4044	40	00.0	Originally RW-1012, inadvertently		A accepted 0/7/0040	40/7/0040
RW-1011	10	30.6	switched	У	Accepted 8/7/2013	10/7/2013
RW-1014	50	50.9		У	No Response	
RW-1017	20	15.9		У	No Response	
RW-1041	20	36.8	privacy	У	Accepted 7/10/2013	
D) 4 / 4 0 / 4 0	4.0		privacy		A	
RW-1042	40	39.3		У	Accepted 10/9/2013	
RW-1045	20	15.3		У	No Response	
RW-1047	10	10.2		у	Accepted 7/3/2013	
RW-1051	20	17.1		У	No Response	
RW-1054	10	10.2		у	Accepted 6/26/2013	9/24/2013
RW-1055	10	10	Shares well w/ RW-1054	у	Accepted 6/26/2013	9/24/2013
RW-1066	ns		RO system present	у	Accepted 6/24/2013	
RW-1068	40	30.7		У	Accepted 6/24/3013	9/27/2013
RW-1075	10	11.3		У	Accepted 6/26/3013	10/1/2013
RW-1078	20	12.4	RO system present	У	No Response	
RW-1082		36.5	Shares well w/ RW-1083	у	No Response	
RW-1083	20	36.5		У	No Response	
RW-1086	20	16.8		У	No Response	
RW-1089	20	16.8	Shares well w/ RW-1086	у	No Response	
			2 wells/2 samples;			
RW-1090A	20, 20	23.8	RW-1090A & RW-1090B	У	Accepted 8/7/2013	10/1/2013
RW-1090B	20, 20	23		У	Accepted 8/7/2013	10/1/2013
RW-1095	20	11.8		У	Accepted 7/16/2013	
RW-1096	20	16		у	Accepted 7/3/2013	9/26/2013
RW-1097	10	10.1		У	Accepted 6/25/2013	9/20/2013
RW-1098	10	10.1	Shares well w/ RW-1097	у	Accepted 6/24/2013	9/27/2013
RW-1099	20	14		У	No Response	0,1,10
RW-1100	20	10.9		У	No Response	
RW-1101	20	18.2	RO system present	У	Accepted 8/7/2013	10/7/2013
RW-1102	10	18.2		у	Accepted 7/1/2013	9/25/2013
RW-1103	10	12.3		V	No Response	0,10,10
RW-1107	10	10.4		V	No Response	
RW-1108	20	20.3		У	Accepted 7/9/2013	9/19/2013
RW-1109	20	20.3	Shares well w/ RW-1108	V	No Response	0,10,20.0
				,		
RW-1112	15	18.1			Accepted 7/8/2013	
RW-1114	20	12.3			No Response	
RW-1121	15	15.6		У	No Response	
RW-1122	40	26.9		у	Accepted 6/24/2013	9/20/2013
RW-1124	30	18.6	<del> </del>	У	No Response	5.20,2010
RW-1125	20	10.5	<u> </u>	у	Accepted 7/10/2013	9/27/2013
	_~			. ,		J J . J

Table 8
Reverse Osmosis System Install Summary
Residential Well Sampling
Yakima Valley Dairies

	Hach	NO3		Mailed		
	Test	Sample		Offer	_	
Sample ID	Result	Result	Notes	Letter	Response	RO Installed
RW-1127	10	13.7	Shares well w/ RW-1097	У	Accepted 6/24/2013	10/7/2013
RW-1129	20	28.5			Accepted 9/24/2013	
RW-1139	30	30.6		У	Accepted 6/25/2013	
RW-1140		30.6	Shares well w/ RW-1139	У	No Response	
RW-1141	40	30.2		У	No Response	
RW-1142	15	18.5		У	No Response	
RW-1143		18.5	Shares well w/ RW-1142	У	No Response	
RW-1145	40	27.3		У	No Response	
			RO system present;	-		
RW-1149	20	13.2	Shares well w/ RW-1097	у	Accepted 6/24/2013	
RW-1152	20	15.8		У	Accepted 7/8/2013	10/1/2013
RW-1159	10	12		У	Accepted 6/23/2013	9/19/2013
RW-1171	20	12.7		У	No Response	
RW-1203	15	17.9		-	Accepted 8/11/2013	9/17/2013
RW-1204	15	13.1		У	No Response	
RW-1212	20	12.5	Shares well w/ RW-1212A	У	Accepted 6/22/2013	9/19/2013
RW-1212A	20	15.1		у	Accepted 9/24/2013	
RW-1214	5	12.7		у	No Response	
RW-1218	20	26.6		у	Accepted 6/27/2013	9/25/2013
RW-1219	20	31.1		у	No Response	
RW-1221	10	13	Shares well w/ RW-1222 & RW-1223	У	No Response	
RW-1222		13	Shares well w/ RW-1221	У	No Response	
RW-1230	20	25.9	Did not give name	у	No Response	
RW-1237	30	35.7		у	No Response	
RW-1238	15	13.8		У	No Response	

Sample							Owner,	Owner,		Occupant,	Occupant,
ID	Parcel #	Number	Street	City	State	Zipcode	Last Name	First Name	Organization Name	Last Name	First Name
RW-1002	I di Gei #	Mannoer	Jueet	Oity	Jiaic	Lipcode	Last Hame	i ii st ivanite	Organization Name	Last Haine	i ii st ivailie
RW-1002		+									
RW-1004		<b>+</b>									
RW-1005	-	+									
RW-1006									-		
	-										
RW-1007											
RW-1010									_		
RW-1013		_							_		
RW-1015		$\bot$							_		
RW-1019		_							_		
RW-1021	-	+							_		
RW-1022 RW-1028		+									
RW-1028		+									
RW-1034	-	+							_		
RW-1036	-	+							-		
111111111111111111111111111111111111111		+									
RW-1040											
RW-1065	-										
RW-1069											
RW-1078											
RW-1080		$\perp$							_		
RW-1081		_							_		
RW-1101	-	_							-		
RW-1113 RW-1120		+							-		
RW-1123	-	+									
RW-1128	-	+							-		
RW-1133	-	+							-		
RW-1136		+									
RW-1138											
RW-1146											
RW-1149											
RW-1150											
RW-1151		<b>_</b>									
RW-1158											
RW-1162											
RW-1164 RW-1166		+									
RW-1170		+									
RW-1173											
RW-1174											
RW-1176											
RW-1201											
RW-1207											
RW-1217											
RW-1220											

Sample ID	Parcel #	Number	Street	City	State	Zipcode	Owner, Last Name	Owner, First Name	Organization Name	Occupant, Last Name	Occupant, First Name
RW-1223											
RW-1231	-	+							G		
RW-1239											

						Property		Hach	NO3		Mailed		
Sample					Phone	Visit	Sample	Test	Sample		Offer		Maintenance
ID	Mailing Address	City	State	Zipcode	No.	Date	Collected	Result	Result	Notes	Letter	Response	Performed
RW-1002	3	,				10-Jun	n			RO system present	V	No Response	
RW-1003						2-Jun	n			RO system present	V	No Response	
RW-1004						10-Jun	n			RO system present	V	No Response	
RW-1005						2-Jun	n			RO system present	V	No Response	
RW-1006						10-Jun	n			RO system present	V	No Response	
										RO system present;	,		
RW-1007						19-Jun	l n			Previously listed as RW-1205		Accepted 6/25/2013	10/7/2013
RW-1010						3-Jun	n			RO system present	V	Accepted 7/15/2013	9/26/2013
RW-1013						3-Jun	n			RO system present	V	No Response	
RW-1015						2-Jun	n			RO system present	V	Accepted 7/16/2013	
RW-1019						2-Jun	n			RO system present	V	No Response	
RW-1021						3-Jun	n			RO system present	V	No Response	
RW-1022						19-Jun	n			RO system present	,	Uncooperative occupant	
RW-1028						3-Jun	n			RO system present	V	No Response	
RW-1029						18-Jun	n			RO system present	,	No Response	
RW-1034						3-Jun	n			RO system present	V	No Response	
RW-1036						3-Jun	n			RO system present	V	No Response	
1000						o dan	''			RO system present;	y	The response	
RW-1040						4-Jun	n			Shares well w/ RW-1042	V	Accepted 7/1/2013	10/1/2013
RW-1065						3-Jun	n			RO system present	V	Accepted 7/1/2013	9/26/2013
RW-1069						19-Jun	n			RO system present	y	No Response	3/20/2010
RW-1078						29-May	V	20		RO system present	V	No Response	
RW-1080						30-May	n y	ns		RO system present	V	No Response	
RW-1081						20-Jun	n	113		RO system present	у	No Response	
RW-1101						29-May	V	20		RO system present	V	No Response	
RW-1113						6-Jun	n	20		RO system present	y V	No Response	
RW-1113						4-Jun	n			RO system present	V	No Response	<u> </u>
RW-1123						4-Jun	n			RO system present	V	No Response	
RW-1128						4-Jun	11			RO system present	V	Accepted 6/28/2013	9/18/2013
RW-1126						20-Jun	n			RO system present	у	Accepted 7/16/2013	9/10/2013
RW-1136						5-Jun	n			RO system present	V	No Response	
RW-1138						5-Jun	n n			RO system present	V	No Response	<del> </del>
RW-1146						5-Jun				RO system present	У	No Response	
RW-1149						29-May	n V	20			У У	Accepted 6/24/2013	9/18/2013
RW-1150						30-May	,			RO system present	y V	No Response	9/16/2013
RW-1151							n	ns		RO system present	,	•	<del> </del>
						6-Jun	n	20		RO system present	у	No Response	0/25/2012
RW-1158						29-May	У	20		RO system present	у	Accepted 6/27/2013	9/25/2013
RW-1162						20-Jun	n			RO system present		Accepted 6/25/2013	10/1/2013
RW-1164						5-Jun	n			RO system present	у	No Response	<del> </del>
RW-1166						20-Jun	n			RO system present		No Response	<del>                                     </del>
RW-1170						6-Jun	n			RO system present	У	No Response	<del>                                     </del>
RW-1173						30-May	n	ns		RO system present	У	No Response	0/00/0040
RW-1174						30-May	n	ns		RO system present	у	Accepted 6/25/2013	9/20/2013
RW-1176						6-Jun	n			RO system present	У	No Response	
RW-1201						19-Jun	n			RO system present		Accepted 9/11/2013	
RW-1207						10-Jun	n			RO system present	У	No Response	<u> </u>
RW-1217						10-Jun	n			RO system present	У	No Response	<del>                                     </del>
RW-1220						10-Jun	n			RO system present	У	No Response	<u> </u>

						Property		Hach	NO3		Mailed		
Sample					Phone	Visit	Sample	Test	Sample		Offer		Maintenance
ID	Mailing Address	City	State	Zipcode	No.	Date	Collected	Result	Result	Notes	Letter	Response	Performed
										RO system present;			
RW-1223						9-Jun	n			Shares well w/ RW-1221	у	Accepted 7/1/2013	
RW-1231						19-Jun	n			RO system present		Accepted 9/11/2013	
RW-1239						10-Jun	n			RO system present	у	No Response	

## Table 10 Not-At-Home and Refusal Summary Residential Well Sampling Yakima Valley Dairies

Sample No.	Number	Street	Owner/Occupant Last Name	Owner/Occupant First Name	Visit Date (2013)	Notes
RW-1001		I			6/2	Vacant lot;
RW-1009	_				6/19	Not home; left card (2nd attempt; first visit 6/3)
RW-1016					6/2	Vacant
RW-1023					6/3	Vacant; left card
RW-1038					6/18	Not home; left card (2nd attempt; first visit 6/4)
RW-1052					6/5	Vacant; left card
RW-1057					6/18	Not home; left card (2nd attempt; first visit 6/4)
RW-1058					6/19	Not home; left card (2nd attempt; first visit 6/4)
RW-1059					6/19	Not home; left card (2nd attempt; first visit 6/4)
RW-1061					6/6	Refusal; Do not sample
RW-1077	_				6/19	Not home; left card (2nd attempt; first visit 6/4)
RW-1079	_				5/30	Vacant; ; left card;
RW-1088	_				6/19	Not home; left card (2nd attempt; first visit 5/30)
RW-1104	_				6/20	Not home; left card (2nd attempt; first visit 5/29)
RW-1106	_				5/29	Vacant
RW-1117	_				6/19	Not home; left card (2nd attempt; first visit 6/4)
RW-1135	_				6/19	Refusal
RW-1137	_				6/19	Not home; left card (2nd attempt; first visit 6/5)
RW-1144	_				6/3	Vacant; left card
RW-1147	_				6/5	Vacant; left card
RW-1148	-				6/19	Not home; left card ; 2nd attempt; first visit 6/6))
RW-1155	_				6/19	Refusal
RW-1156	_				6/19	Not home; left card (2nd attempt; first visit 6/5)
RW-1157	_				6/19	Not home; left card (2nd attempt; first visit 6/5)
RW-1167					6/20	Not home; left card (2nd attempt; first visit 6/6)
RW-1168	_				6/20	Not home; left card (2nd attempt; first visit 6/6)
RW-1175	_				6/20	Not home; left card (2nd attempt; first visit 6/3)
RW-1180	- -				6/4	Refusal; ; left carc
RW-1202	_				6/10	No home present
RW-1206					6/10	Parcel does not exist
RW-1215					6/10	No home present
RW-1225					6/9	No home present
RW-1229					6/20	Not home; left card (2nd attempt; first visit 6/10)
RW-1232					6/19	Not home; left card (2nd attempt; first visit 6/10)
RW-1233					6/10	No home present
RW-1234					6/19	Not home; left card (2nd attempt; first visit 6/10)